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     (FILE 'HOME' ENTERED AT 10:22:12 ON 01 FEB 2008)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 10:22:27 ON 01 FEB 2008
L1             0 S ?SEPHAROSE? (P) ?SPACER? (P) PHENYL (P) AMINO
L2             9 S ?SEPHAROSE? (P) ?SPACER? (P) PHENYL

     FILE 'REGISTRY' ENTERED AT 10:46:49 ON 01 FEB 2008
L3               STRUCTURE UPLOADED
L4            16 S L3 SSS SAM
L5          3581 S L3 SSS FULL

     FILE 'CAPLUS, MEDLINE' ENTERED AT 10:48:50 ON 01 FEB 2008
L6          2421 S L5
L7            38 S L6 AND SEPHAROSE?
L8            38 S L6 AND ?SEPHAROSE?
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L2 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:753237 CAPLUS
DOCUMENT NUMBER: 139:225477
TITLE: Preparation of purified, therapeutically-usable human somatotropin with recombinant Gram-negative bacteria
INVENTOR(S): Bartolini, Paolo; Ribela, Maria Teresa Carvalho Pinto; Soares, Carlos Roberto Jorge
PATENT ASSIGNEE(S): Comissao Nacional de Energia Nuclear, Brazil
SOURCE: Braz. Pedido PI, 27 pp.
CODEN: BPXXDX
DOCUMENT TYPE: Patent
LANGUAGE: Portuguese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BR 2000003051	A	20020219	BR 2000-3051	20000710
PRIORITY APPLN. INFO.:			BR 2000-3051	20000710

AB Human growth hormone (hGH) is produced with Gram-neg. bacteria, such as Escherichia coli. The somatotropin, which is produced in 40% yield, may be injected for pharmaceutical use. Thus, 3 plasmids, in which a modified gene for hGH is fused to the λ PL promoter and a selectable marker encoding ampicillin, kanamycin, or tetracycline resistance, are present, were constructed. To improve expression of this chimeric gene, the human signal sequence was modified to remove codons 2 and 3 and a 10 nucleotide spacer was inserted between the Shine-Dalgarno sequence and the initiation codon. The hGH was secreted into the periplasmic space. A 5-step chromatog. purification procedure was followed. Phenyl-Sepharose CL4B, DEAE-Sepharose Fast Flow, Sephacryl S100, and Q-Sepharose Fast Flow were used.

L2 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:467676 CAPLUS
DOCUMENT NUMBER: 115:67676
TITLE: Preparation, characterization and biological properties of biotinylated derivatives of calmodulin
AUTHOR(S): Polli, Joseph W.; Billingsley, Melvin L.
CORPORATE SOURCE: Coll. Med., Pennsylvania State Univ., Hershey, PA, 17033, USA
SOURCE: Biochemical Journal (1991), 275(3), 733-43
CODEN: BIJOAK; ISSN: 0306-3275
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Biotinylated derivs. of calmodulin (CaM) were prepared and their biol. properties characterized by using enzyme assays, affinity and hydrophobic-interaction chromatog. Several N-hydroxysuccinimidobiotin derivs. [sulfosuccinimidobiotin (sulfo-NHS) and sulfosuccinimido-6-(biotinamido)hexanoate (BNHS-LC)] differing in spacer arm length were used to modify CaM. The shorter-spacer-arm CaM derivative (sulfo-CaM) activated CaM-dependent cyclic nucleotide phosphodiesterase and CaM-dependent protein kinase II; preincubation with avidin blocked its ability to activate these enzymes. The extended-spacer-arm derivative (BNHS-LC-CaM) activated CaM-dependent enzymes both in the presence and in the absence of avidin, suggesting that the longer spacer arm diminished steric effects from avidin preincubation. Other biotinylated CaM derivs. were prepared with biotinylated tyrosine and/or histidine residues (diazobenzoylbiocytin; DBB-CaM) or nucleophilic sites (photobiotin acetate; photo-CaM). These derivs. activated CaM-dependent enzymes in the presence and in the absence of avidin. Oriented affinity columns were constructed with covalently immobilized avidin complexed to each biotinylated CaM derivative The chromatog. profiles obtained revealed that each column interacted with a specific subset of CaM-binding

proteins. Elution profiles of biotinyl CaM derivs. on phenyl-Sepharose hydrophobic-interaction chromatog. suggested that several derivs. displayed diminished binding to the matrix in the presence of Ca2+. Development and characterization of a series of biotinylated CaM mols. can be used to identify domains of CaM that interact with specific CaM-dependent enzymes.

L2 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:569601 CAPLUS
DOCUMENT NUMBER: 111:169601
TITLE: Hydrophobic properties of β-glycoprotein from blood serum of pregnant rats
AUTHOR(S): Krivonosov, S. K.; Zorin, N. A.; Kan, M. F.; Kursin, A. F.; Leutova, G. V.
CORPORATE SOURCE: 2nd State Med. Inst. Moscow, Moscow, USSR
SOURCE: Ontogenez (1989), 20(4), 435-9
CODEN: ONGZAC; ISSN: 0475-1450
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB During immunoelectrophoresis in the presence of Tween-80, Triton X-100, and (NH4)2SO4 blood serum β-glycoprotein of pregnant rats migrated along with β-globulins as a main single band; minor components in zones of α- and γ-globulins were not detected. The β-glycoprotein was completely absorbed by phenyl-Sepharose in the absence of ligand and when the spacer arm for Ph group was short. When the Ph group was linked with the template through a long spacer arm, 3 forms of β-glycoprotein with different immunoelectrophoretic mobility were detected after absorption with phenyl-Sepharose. Hence, β-glycoprotein is hydrophobic and is represented by α-, β-, and γ-forms in blood plasma of pregnant rats.

L2 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1988:183304 CAPLUS
DOCUMENT NUMBER: 108:183304
TITLE: Purification and use of cyclophilin
INVENTOR(S): Handschumacher, Robert E.; Harding, Matthew W.; Speicher, David W.
PATENT ASSIGNEE(S): Yale University, USA
SOURCE: U.S., 7 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4722999	A	19880202	US 1985-730776	19850503
US 5047512	A	19910910	US 1987-65395	19870623
PRIORITY APPLN. INFO.:			US 1985-730776 A3	19850503

AB Cyclophilin, a homogeneous cytosolic binding protein having a specific binding activity >50 μg cyclosporin A (CsA)/mg protein and a mol. weight of .apprx.17,600, is purified by mol. weight exclusion chromatog., Cibacron Blue chromatog., isoelec. focusing, phenyl-Sepharose chromatog., and cation-exchange chromatog. Cyclophilin, per se or immobilized, can be used as a specific binding partner to ligands for diagnostic, purification, or investigative procedures. Cytosol supernatant of bovine thymus gland was filtered through a 0.2-μm Acroflux Capsule, then through a Pellicon 10,000-dalton exclusion membrane before chromatog. on an affinity matrix (Cibacron Blue dye bound to agarose via a C12 spacer arm), preparative isoelec. focusing (pH 8-10.5), and phenyl-Sepharose chromatog. The isoforms of bovine cyclophilin were separated by weak cation-exchange HPLC. The major and minor

isoforms had CsA binding specific activities of 77 and 67 μg/mg protein, resp.

L2 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1987:632396 CAPLUS
DOCUMENT NUMBER: 107:232396
TITLE: Determination of the leakage from Phenyl-Sepharose CL-4B, Phenyl-Sepharose FF and Phenyl-Superose in bulk and column experiments
AUTHOR(S): Johansson, Bo Lennart; Hellberg, Ulf; Wennberg, Olle
CORPORATE SOURCE: Dep. Qual. Control, Pharmacia AB, Uppsala, S-751 82, Swed.
SOURCE: Journal of Chromatography (1987), 403, 85-98
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The leakage products were identified and quantified by liquid chromatog., fluorescence spectroscopy, and proton NMR spectroscopy. The leakage occurs primarily through hydrolysis of the agarose support. However, leakage via ether cleavage of the spacer arm-ligand moiety is also observed especially for Phenyl-Superose. The release of ligands at acidic pH is in agreement with a 1st-order reaction and correspondingly the rate consts. were extracted for all 3 gels at pH 1 and 2. These show that 50% of the ligands are intact after 15 yr of incubation at pH 2. Phenyl-Superose is the most stable gel at acidic pH, whereas Phenyl-Sepharose CL 4B and Phenyl-Sepharose FF are the most stable at neutral and basic pH.

L2 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1984:98799 CAPLUS
DOCUMENT NUMBER: 100:98799
ORIGINAL REFERENCE NO.: 100:14929a,14932a
TITLE: Preparation and properties of calcium-dependent resins with increased selectivity for calmodulin
AUTHOR(S): Hart, Russell C.; Hice, Rita E.; Charbonneau, Harry; Putnam-Evans, Cindy; Cormier, Milton J.
CORPORATE SOURCE: Dep. Biochem., Univ. Georgia, Athens, GA, 30602, USA
SOURCE: Analytical Biochemistry (1983), 135(1), 208-20
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Naphthalene sulfonamides and phenothiazines were prepared by known methods, coupled either directly or via spacer arms to 3 types of Sepharose (epoxide-activated, CNBr-activated, and carbodiimide-activated), and the resins were evaluated with regard to their phys. properties and for the purification of porcine brain calmodulin by using EGTA-containing elution buffers without NaCl. The prepared resins were also compared to phenyl-Sepharose and Affi-Gel phenothiazine. All of the resins, with the exception of Affi-Gel phenothiazine, had some capacity to bind calmodulin. Trifluoromethyl-10-aminopropyl phenothiazine (TAPP), when linked to epoxide-activated Sepharose, was the most useful for calmodulin isolation in terms of its combined stability, capacity, and ability to select for calmodulin. This resin behaved as a true affinity resin. A quant. evaluation of its affinity behavior was consistent with the presence of 2 high-affinity Ca2+-dependent phenothizine-binding sites on calmodulin, in apparent agreement with previous reports which involved the use of different methods.

L2 ANSWER 7 OF 9 MEDLINE on STN
ACCESSION NUMBER: 91248109 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1645521
TITLE: Preparation, characterization and biological properties of biotinylated derivatives of calmodulin.

AUTHOR: Polli J W; Billingsley M L
CORPORATE SOURCE: Department of Pharmacology, Pennsylvania State University College of Medicine, Hershey 17033.
CONTRACT NUMBER: R01-AG06377 (United States NIA)
R01-ES05450 (United States NIEHS)
SOURCE: The Biochemical journal, (1991 May 1) Vol. 275 (Pt 3), pp. 733-43.
Journal code: 2984726R. ISSN: 0264-6021.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199107
ENTRY DATE: Entered STN: 19 Jul 1991
Last Updated on STN: 6 Feb 1998
Entered Medline: 3 Jul 1991

AB Biotinylated derivatives of calmodulin (CaM) were prepared and their biological properties characterized by using enzyme assays, affinity and hydrophobic-interaction chromatography. Several N-hydroxysuccinimidobiotin derivatives [sulphosuccinimidobiotin (sulpho-NHS) and sulphosuccinimido-6-(biotinamido)hexanoate (BNHS-LC)] differing in spacer arm length were used to modify CaM. The shorter-spacer-arm CaM derivative (sulpho-CaM) activated CaM-dependent cyclic nucleotide phosphodiesterase and CaM-dependent protein kinase II; preincubation with avidin blocked its ability to activate these enzymes. The extended-spacer-arm derivative (BNHS-LC-CaM) activated CaM-dependent enzymes both in the presence and in the absence of avidin, suggesting that the longer spacer arm diminished steric effects from avidin preincubation. Other biotinylated CaM derivatives were prepared with biotinylated tyrosine and/or histidine residues (diazobenzoylbiocytin; DBB-CaM) or nucleophilic sites (photobiotin acetate; photo-CaM). These derivatives activated CaM-dependent enzymes in the presence and in the absence of avidin. Oriented affinity columns were constructed with covalently immobilized avidin complexed to each biotinylated CaM derivative. The chromatographic profiles obtained revealed that each column interacted with a specific subset of CaM-binding proteins. Elution profiles of biotinyl CaM derivatives on phenyl -Sepharose hydrophobic-interaction chromatography suggested that several derivatives displayed diminished binding to the matrix in the presence of Ca2+. Development and characterization of a series of biotinylated CaM molecules can be used to identify domains of CaM that interact with specific CaM-dependent enzymes.

L2 ANSWER 8 OF 9 MEDLINE on STN
ACCESSION NUMBER: 90016067 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2477777
TITLE: [The hydrophobic properties of beta-glycoprotein from the blood serum of pregnant rats].
Gidrofobnye svoistva beta-glikoproteina syvorotki krovi beremennykh krys.
AUTHOR: Krivonosov S K; Zorin N A; Kan M F; Kursin A F; Leutova G V
SOURCE: Ontogenez, (1989 Jul-Aug) Vol. 20, No. 4, pp. 435-9.
Journal code: 0341527. ISSN: 0475-1450.
PUB. COUNTRY: USSR
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198911
ENTRY DATE: Entered STN: 28 Mar 1990
Last Updated on STN: 29 Jan 1996
Entered Medline: 1 Nov 1989

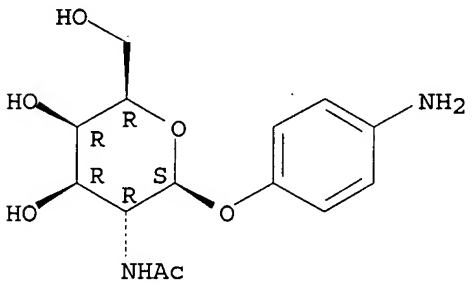
AB During immunoelectrophoresis in the presence of tween-80, triton X-100 and ammonium sulfate blood serum beta-glycoprotein of pregnant rats migrated along with beta-globulins as a main single band; its minor components in zones of alpha- and gamma-globulins were not detected. beta-glycoprotein was completely absorbed by phenyl sepharose in the absence of ligand as well as when the spacer arm for phenyl group was short. When the phenyl group was linked with the template through a long spacer arm, three froms of beta-glycoprotein with different immunoelectrophoretic mobility were detected after absorbtion with phenyl sepharose. Hence, beta-glycoprotein is hydrophobic and is represented by alpha-, beta- and gamma-forms in blood plasma of pregnant rats.

L2 ANSWER 9 OF 9 MEDLINE on STN
ACCESSION NUMBER: 88059426 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3680428
TITLE: Determination of the leakage from Phenyl-Sepharose Cl-4B, Phenyl-Sepharose FF and Phenyl-Superose in bulk and column experiments.
AUTHOR: Johansson B L; Hellberg U; Wennberg O
CORPORATE SOURCE: Pharmacia AB, Department of Quality Control, Uppsala, Sweden.
SOURCE: Journal of chromatography, (1987 Aug 21) Vol. 403, pp. 85-98.
Journal code: 0427043. ISSN: 0021-9673.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198801
ENTRY DATE: Entered STN: 5 Mar 1990
Last Updated on STN: 5 Mar 1990
Entered Medline: 15 Jan 1988

AB The release of ligands from Phenyl-Sepharose CL-4B, Phenyl-Sepharose FF and Phenyl-Superose has been studied in bulk and column experiments. The leakage products have been identified and quantified by liquid chromatography, fluorescence spectroscopy and proton NMR spectroscopy. It is demonstrated that the leakage occurs primarily through hydrolysis of the agarose support. However, leakage via ether cleavage of the spacer arm-ligand moiety is also observed especially for Phenyl-Superose. The release of ligands at acidic pH is in agreement with a first-order reaction and correspondingly the rate constants have been estimated for all three gels at pH 1 and 2. These show that 50% of the ligands are intact after 15 years of incubation at pH 2. Phenyl-Superose is the most stable gel at acidic pH, whereas Phenyl-Sepharose CL-4B and Phenyl-Sepharose FF are the most stable at neutral and basic pH.

L7 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:610938 CAPLUS
DOCUMENT NUMBER: 89:210938
ORIGINAL REFERENCE NO.: 89:32719a,32722a
TITLE: Affinity chromatography of bovine brain β-hexosaminidases with substrate as affinity ligand
AUTHOR(S): Lisman, Jan J. W.; Overdijk, Bernard
CORPORATE SOURCE: Vakgroep Med. Chem., Vrije Univ., Amsterdam, Neth.
SOURCE: Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie (1978), 359(8), 1019-22
CODEN: HSZPAZ; ISSN: 0018-4888
DOCUMENT TYPE: Journal
LANGUAGE: English
AB P-nitrophenyl-2-acetamido-2-deoxy-β-D-galactopyranoside was reduced to the corresponding p-aminophenyl galactoside and then coupled with CH-Sepharase 4B in the presence of 3-(3-dimethylaminopropyl)-1-ethylcarbodiimide. This affinity column was used to purify hexosaminidases A and B by 125-fold from a bovine brain tissue homogenate. Hexosaminidase C was not bound to the affinity ligand. Sepharose -p-aminophenyl-2-acetamido-2-deoxy-β-D-glycopyranoside was ineffective as an affinity ligand for any of the 3 hexosaminidases.
IT 50271-52-8
RL: BIOL (Biological study)
(in affinity chromatog. of β-hexosaminidases)
RN 50271-52-8 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl 2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:505588 CAPLUS
DOCUMENT NUMBER: 89:105588
ORIGINAL REFERENCE NO.: 89:16219a,16222a
TITLE: The enzymic synthesis of p-amino-phenyl glycosides of glucosyl oligosaccharides and their use for affinity chromatography of antibodies and myeloma proteins
AUTHOR(S): Pazur, John H.; Tominaga, Yoshio; Dreher, Kevin L.; Forsberg, L. Scott; Romanic, Bruce M.
CORPORATE SOURCE: Dep. Biochem. Biophys., Pennsylvania State Univ., University Park, PA, USA
SOURCE: Journal of Carbohydrates, Nucleosides, Nucleotides (1978), 5(1), 1-14
CODEN: JCNNAF; ISSN: 0094-0585
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 4-Aminophenyl glycosides of maltooligosaccharides were prepared by treating cyclomaltohexaose with 4-aminophenyl β-D-glucoside (I) in the presence of macerans amylase (EC 2.4.1.19) or by treating maltose with I

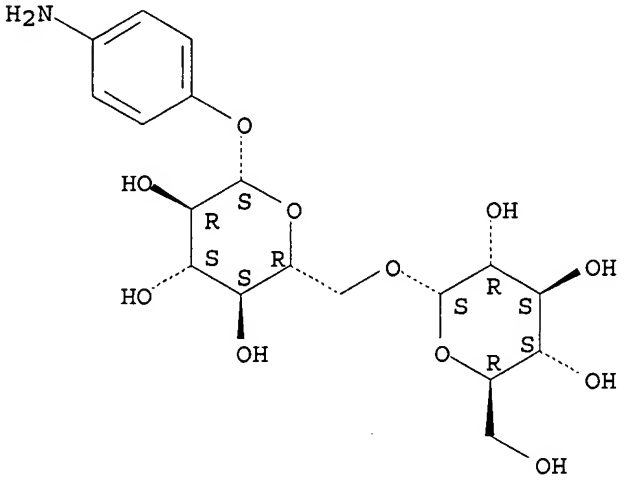
in the presence of glucosyl transferase (EC 2.4.1.24). 4-Aminophenyl isomaltoside was isolated by preparative paper chromatog. and treated with sepharose to give isomaltosyl Sepharose (II). II was used to isolate anti-isomaltose antibodies, anti-glucose antibodies, and myeloma proteins from serum.

IT 67214-44-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with Sepharose)

RN 67214-44-2 CAPLUS

CN β-D-Glucopyranoside, 4-aminophenyl 6-O-α-D-glucopyranosyl- (CA INDEX NAME)

Absolute stereochemistry.

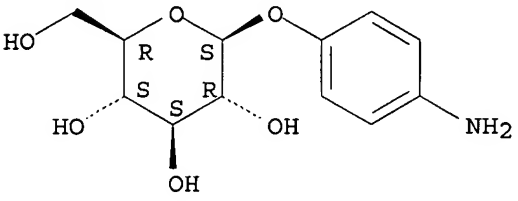


IT 20818-25-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with maltose and cyclomaltohexaose)

RN 20818-25-1 CAPLUS

CN β-D-Glucopyranoside, 4-aminophenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

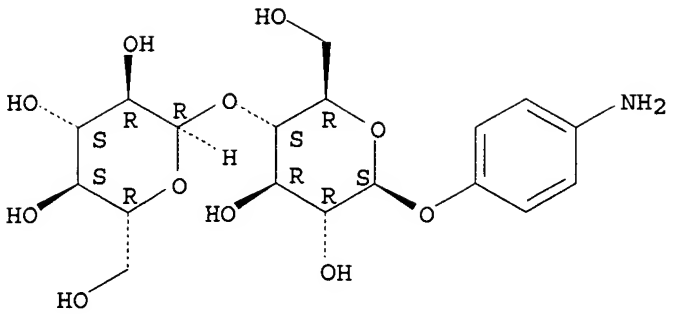


IT 42935-29-5P 67214-45-3P 67214-46-4P
67214-47-5P 67214-48-6P 67214-49-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 42935-29-5 CAPLUS

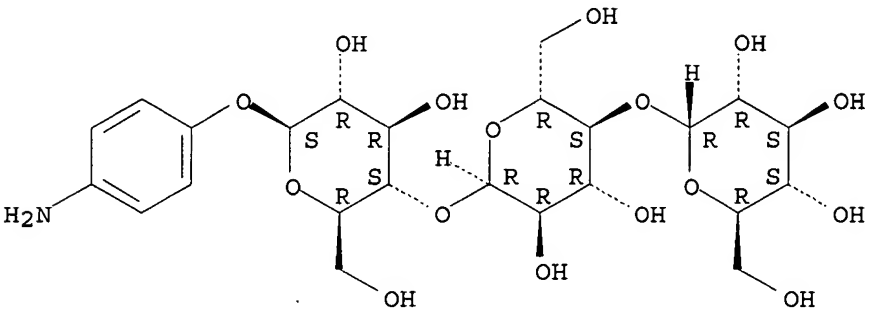
CN β-D-Glucopyranoside, 4-aminophenyl 4-O-α-D-glucopyranosyl- (CA INDEX NAME)

Absolute stereochemistry.



RN 67214-45-3 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl O-α-D-glucopyranosyl-(1→4)-O-α-D-glucopyranosyl-(1→4)- (CA INDEX NAME)

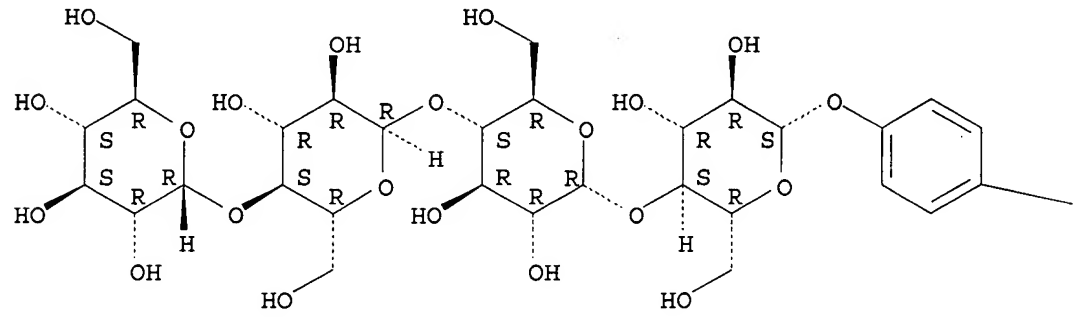
Absolute stereochemistry.



RN 67214-46-4 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl O-α-D-glucopyranosyl-(1→4)-O-α-D-glucopyranosyl-(1→4)-O-α-D-glucopyranosyl-(1→4)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

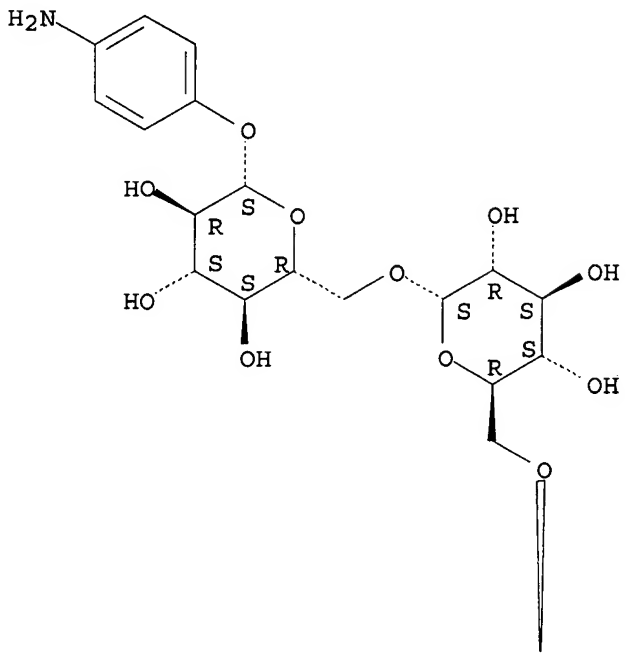


PAGE 1-B

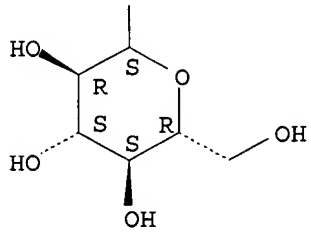
RN 67214-47-5 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl O-α-D-glucopyranosyl-(1→6)-O-α-D-glucopyranosyl-(1→6)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



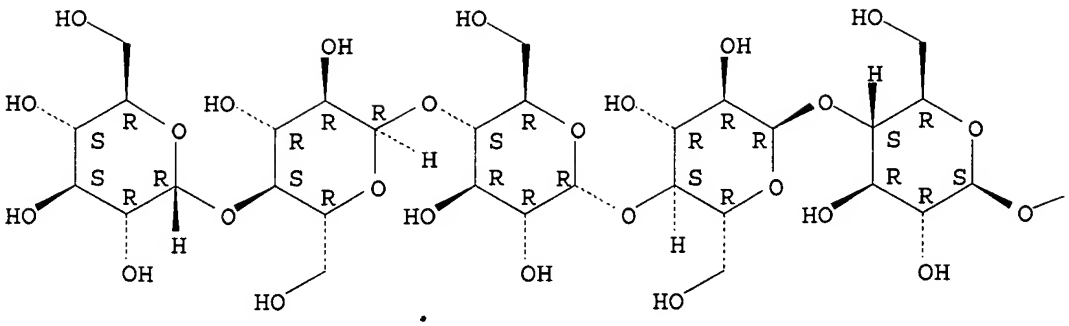
PAGE 2-A



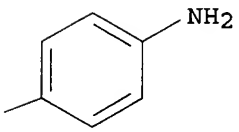
RN 67214-48-6 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl O-α-D-glucopyranosyl-(1→4)-O-α-D-glucopyranosyl-(1→4)-O-α-D-glucopyranosyl-(1→4)-O-α-D-glucopyranosyl-(1→4)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



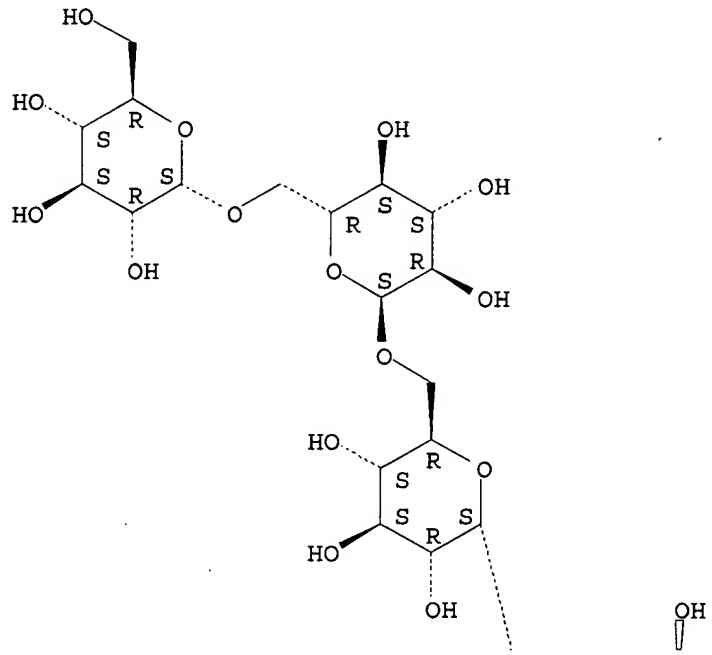
PAGE 1-B

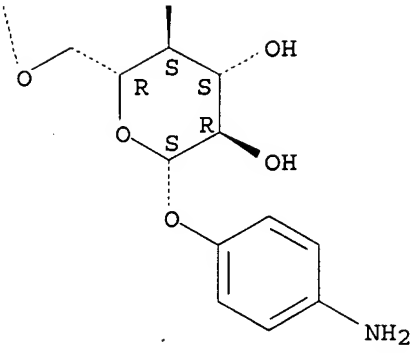


RN 67214-49-7 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl O-α-D-glucopyranosyl-(1→6)-O-α-D-glucopyranosyl-(1→6)-O-α-D-glucopyranosyl-(1→6)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



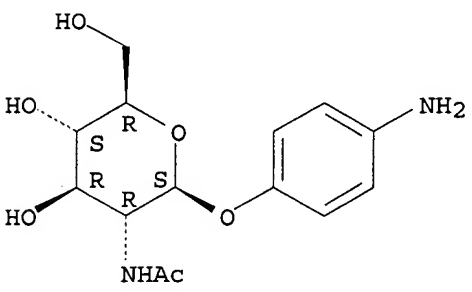


L7 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:502516 CAPLUS
DOCUMENT NUMBER: 89:102516
ORIGINAL REFERENCE NO.: 89:15666h,15667a
TITLE: Purification and some properties of bovine liver β-acetylhexosaminidase
AUTHOR(S): Tanaka, Mitsuya; Kyosaka, Shigehisa; Murata, Sanae
CORPORATE SOURCE: Fac. Pharm. Sci., Toho Univ., Funabashi, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1978), 26(4), 1188-94
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Three fractions of liver β-acetylhexosaminidase activity were purified by (NH4)2SO4 precipitation, treatment at pH 3.8 at 37°, Sephadex G-200 gel filtration, DEAE-cellulose column chromatog., and affinity chromatog. on p-aminophenyl β-1-thioacetylglucosaminide bound to CH-Sepharose. A hexosaminidase A was obtained as a electrophoretically pure protein with high sp. activity, 137 units/mg. Activity in hexosaminidase B fraction showed multiplicity in its behavior in the affinity chromatog., and the high sp. activity (184 units/mg) was obtained only with a β-aminophenyl β-acetylglucosaminide column. The Km values and ratios of acetylglucosaminidase to acetylgalactosaminidase activities were determined for the main components. The mol. wts. of hexosaminidase A and B were estimated to be 280,000 and 320,000, resp., as determined by gel filtration using the partially purified enzymes.

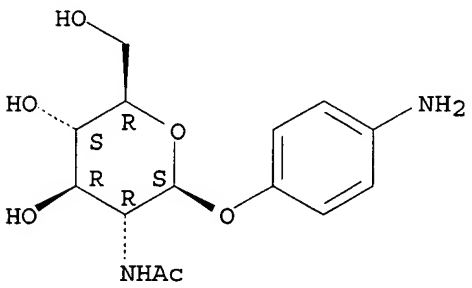
IT 14419-59-1
RL: BIOL (Biological study)
(in affinity chromatog. of β-acetylhexosaminidase)
RN 14419-59-1 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl 2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:134613 CAPLUS
DOCUMENT NUMBER: 88:134613
ORIGINAL REFERENCE NO.: 88:21143a,21146a
TITLE: Purification of anti streptococcus group A antibodies by affinity chromatography and isoelectric focusing
AUTHOR(S): Poulsen, Flemming M.; Johansen, Jack T.
CORPORATE SOURCE: Dep. Chem., Carlsberg Lab., Copenhagen, Den.
SOURCE: Carlsberg Research Communications (1977), 42(5), 397-405
CODEN: CRCODS; ISSN: 0105-1938
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The synthesis is described of an immunoadsorbent, Sepharose -glycyl-tyrosine-azo-phenyl-N-acetylglucosaminide, which specifically absorbs N-acetylglucosamine-binding proteins. Anti-Streptococcus group A antibody populations exhibiting restricted heterogeneity were obtained by affinity gradient elution of the antibodies from this immunoadsorbent. Isoelec. focusing expts. with purified antibody fractions suggested that antibody structures were affected by the exptl. conditions used for the preparative isoelec. focusing.
IT 14419-59-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(diazotization of, and coupling to Sepharose-glycyltyrosine)
RN 14419-59-1 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl 2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1978:23281 CAPLUS
DOCUMENT NUMBER: 88:23281
ORIGINAL REFERENCE NO.: 88:3753a,3756a
TITLE: Synthesis of antigenic bacterial polysaccharides and their fragments. VII. Synthesis of p-aminophenyl-3-O-[4-O-(β-D-glucopyranosyl)-α-L-rhamnopyranosyl]-β-D-galactopyranoside and its coupling to protein and sepharose
AUTHOR(S): Kochetkov, N. K.; Dmitriev, B. A.; Chernyak, A. Ya.
CORPORATE SOURCE: N. D. Zelinskii Inst. Org. Chem., Moscow, USSR
SOURCE: Bioorganicheskaya Khimiya (1977), 3(6), 752-8
CODEN: BIKHD7; ISSN: 0132-3423
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI For diagram(s), see printed CA Issue.
AB The title compound I (R = H, R1 = NH2) (II) was obtained from III by acetalization with Me2CO, acetylation, glycosylation with cellobiose pentaacetate to give I (R = Ac, R1 = NO2), hydrolysis, and reduction over PtO2. II was coupled to rabbit albumin or CNBr-activated

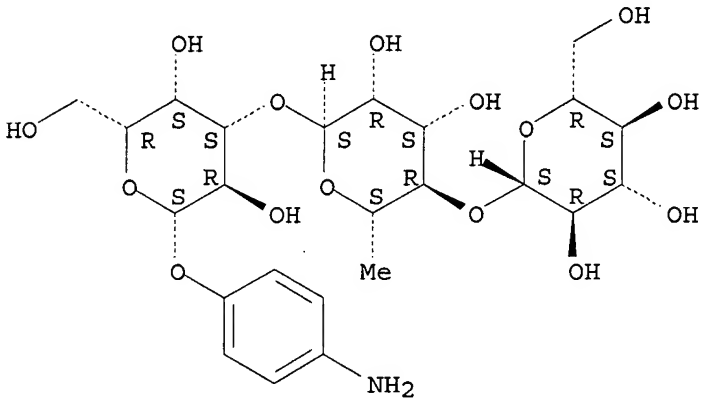
sepharose to give, resp., a synthetic glycoprotein containing .apprx.10% carbohydrates and an absorbent carrying 15 μmol of covalently bound ligands per 1 mL of gel.

IT 64971-01-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and coupling of, with sepharose and rabbit albumin)

RN 64971-01-3 CAPLUS

CN β-D-Galactopyranoside, 4-aminophenyl O-β-D-glucopyranosyl-(1→4)-O-6-deoxy-α-L-mannopyranosyl-(1→3)- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:166922 CAPLUS

DOCUMENT NUMBER: 86:166922

ORIGINAL REFERENCE NO.: 86:26201a,26204a

TITLE: Affinity chromatography of glycosidases. II. Studies on specific and non-specific binding

AUTHOR(S): Mega, Tomohiro; Matsushima, Yoshio

CORPORATE SOURCE: Coll. Sci., Osaka Univ., Toyonaka, Japan

SOURCE: Journal of Biochemistry (Tokyo, Japan) (1977), 81(3), 571-8
CODEN: JOBIAO; ISSN: 0021-924X

DOCUMENT TYPE: Journal

LANGUAGE: English

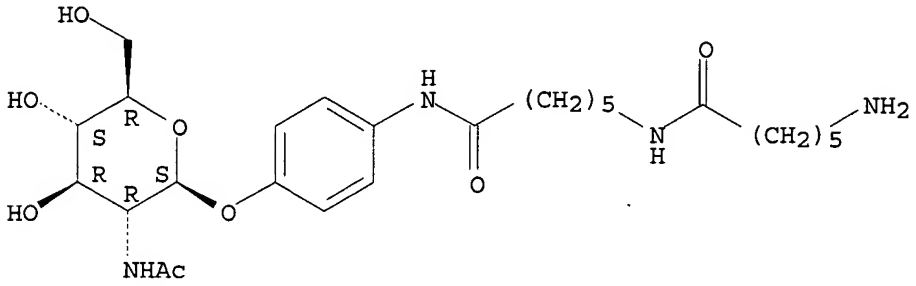
AB Four adsorbents with different structures were prepared by coupling di-ε-aminocaproyl-p-aminophenyl N-acetyl-β-D-glucosaminide, β-D-glucoside, N-(di-ε-aminocaproyl)glucosamine, and N-(di-ε-aminocaproyl)glucosaminitol with CNBr-activated Sepharose 4B. Their adsorption characteristics were examined with partially purified glycosidase mixts. from Takadiastase and from the liver of abalone. The glycosidases were adsorbed at low ionic strength and eluted by increasing the ionic strength, but could not differentiate the ligand structures in the adsorbents, notwithstanding their enzymic specificity. α-Mannosidase was eluted earlier than N-acetyl-β-glucosaminidase, but later than β-glucosidase or β-galactosidase. Concanavalin A adsorbed on adsorbents having different glycoside ligands showed a binding specificity completely parallel to that demonstrated in the inhibition expts. of I. J. Goldstein (1965).

IT 62605-24-7D, reaction product with Sepharose 4B
62605-25-8D, reaction product with Sepharose 4B
RL: BIOL (Biological study)
(affinity chromatog. of glycosidases on)

RN 62605-24-7 CAPLUS

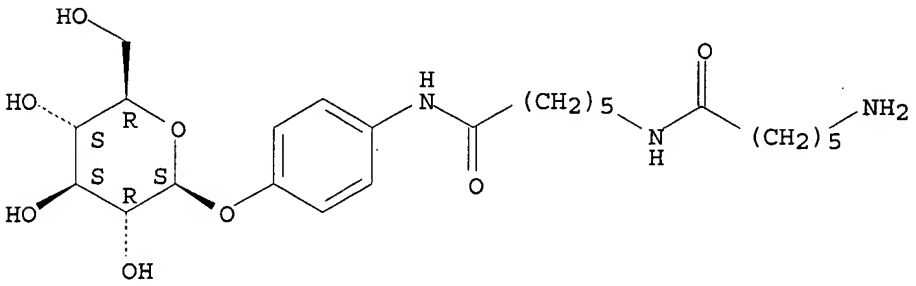
CN Hexanamide, N-[4-[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]phenyl]-6-[(6-amino-1-oxohexyl)amino]- (CA INDEX NAME)

Absolute stereochemistry.



RN 62605-25-8 CAPLUS
CN Hexanamide, 6-amino-N-[6-[[4-(β-D-glucopyranosyloxy)phenyl]amino]-6-oxohexyl]- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1975:439592 CAPLUS
DOCUMENT NUMBER: 83:39592
ORIGINAL REFERENCE NO.: 83:6271a,6274a
TITLE: araC protein
AUTHOR(S): Wilcox, Gary; Clemetson, Kenneth J.
CORPORATE SOURCE: Dep. Biol. Sci., Univ. California, Santa Barbara, CA, USA
SOURCE: Methods in Enzymology (1974), 34(Affinity Tech.: Enzyme Purif., Part B), 368-73
CODEN: MENZAU; ISSN: 0076-6879
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An affinity chromatog. method was described for the purification of the regulatory protein araC of the Escherichia coli B/r arabinose operon. In this method, phenyl-β-D-fucopyranosides were covalently attached to Sepharose 4B activated with CNBr. The araC protein activity was determined by its binding to ara DNA by using the nitrocellulose membrane filter technique developed by A. Riggs, et al. (1970) for the lac repressor. The araC protein was .apprx.20% pure after chromatog., was very unstable, and only 1% was active with respect to ara DNA binding activity. Four major proteins were present, 1 of which was the araC protein. From 15 g cells 2-3 μg araC was recovered with a purification of 1000-fold.

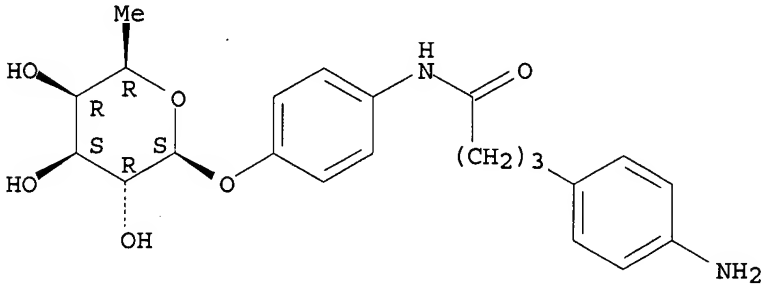
IT 55860-32-7D, Benzenebutanamide, 4-amino-N-[4-[(6-deoxy-β-D-galactopyranosyl)oxy]phenyl]-, reaction products with Sepharose 4B
RL: ANST (Analytical study)

(for affinity chromatog. of arabinose operon protein araC)

RN 55860-32-7 CAPLUS

CN Benzenebutanamide, 4-amino-N-[4-[(6-deoxy-β-D-galactopyranosyl)oxy]phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



IT 55860-29-2P 55860-30-5P 55860-31-6P

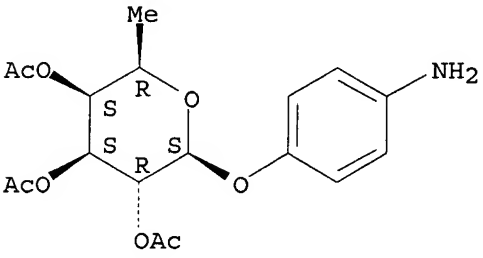
RL: PREP (Preparation)

(preparation of)

RN 55860-29-2 CAPLUS

CN β-D-Galactopyranoside, 4-aminophenyl 6-deoxy-, 2,3,4-triacetate (CA INDEX NAME)

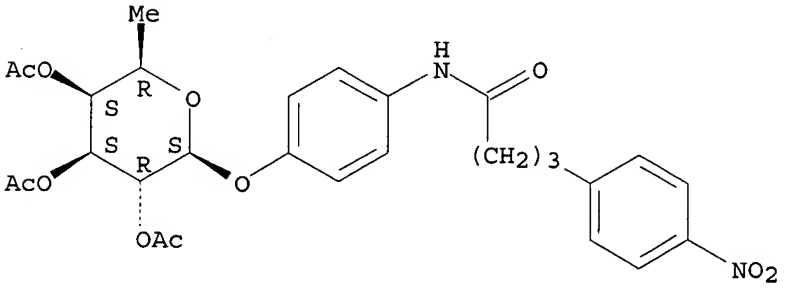
Absolute stereochemistry.



RN 55860-30-5 CAPLUS

CN Benzenebutanamide, 4-nitro-N-[4-[(2,3,4-tri-O-acetyl-6-deoxy-β-D-galactopyranosyl)oxy]phenyl]- (CA INDEX NAME)

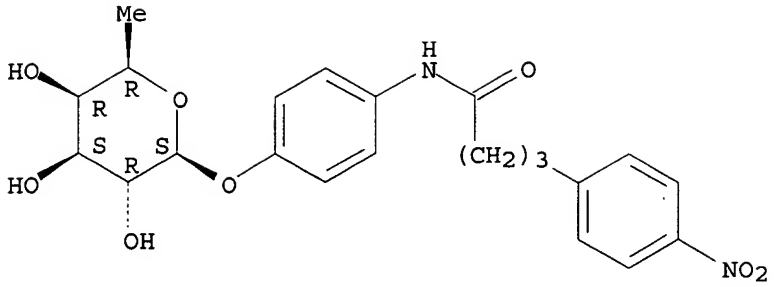
Absolute stereochemistry.



RN 55860-31-6 CAPLUS

CN Benzenebutanamide, N-[4-[(6-deoxy-β-D-galactopyranosyl)oxy]phenyl]-4-nitro- (CA INDEX NAME)

Absolute stereochemistry.

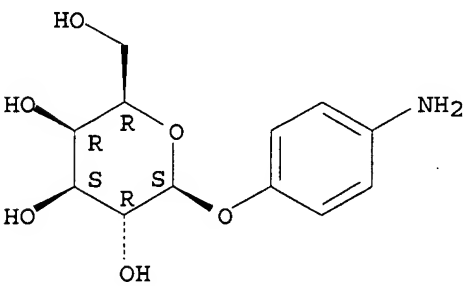


L7 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1974:45051 CAPLUS
DOCUMENT NUMBER: 80:45051
ORIGINAL REFERENCE NO.: 80:7335a,7338a
TITLE: Affinity chromatography by enzyme-substrate interaction. Purification of some rat liver glycosidases
AUTHOR(S): Junowicz, Enrique; Paris, Joseph E.
CORPORATE SOURCE: Sch. Med., Tufts Univ., Boston, MA, USA
SOURCE: Biochimica et Biophysica Acta, Enzymology (1973), 321(1), 234-45
CODEN: BBEZAD; ISSN: 0924-1086
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Derivatives for the affinity chromatography purification of β-glucuronidase and N-acetyl-β-glucosaminidase of bovine or murine origin were prepared by coupling modified glycoside substrates to Sepharose 4B, using suitable extension arms. Resolution of mixtures of glycosidases was difficult, since these enzymes possess similar affinities towards the binding glycon moieties. The bound glycosidases could be eluted specifically with the corresponding substrates, inhibitors, or salt gradients. Forty- to 100-fold purification of the glycosidases with respect to a rat liver autolyzate was achieved in a single step, with a recovery of 90% or higher. For β-glucuronidase, the overall purification with respect to the original tissue was .apprx.1250-fold. The described glycoside-Sepharose derivatives are a convenient means of partially purifying β-glycosidases. These supports are easy to prepare and can be reused several times.

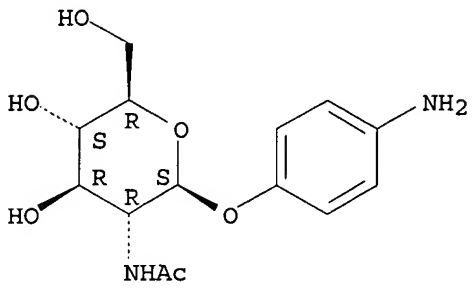
IT 5094-33-7D, β-D-Galactopyranoside, 4-aminophenyl, agarose derivs. 14419-59-1D, β-D-Glucopyranoside, 4-aminophenyl 2-(acetylamino)-2-deoxy-, agarose derivs. 21080-66-0D, β-D-Glucopyranosiduronic acid, 4-aminophenyl, agarose derivs.
RL: BIOL (Biological study)
(in galactosidase purification)
RN 5094-33-7 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



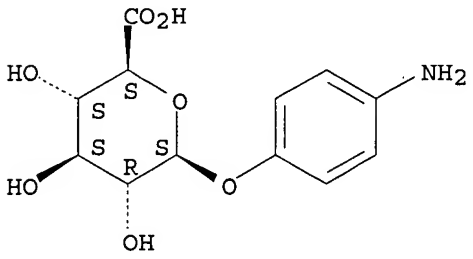
RN 14419-59-1 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl 2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



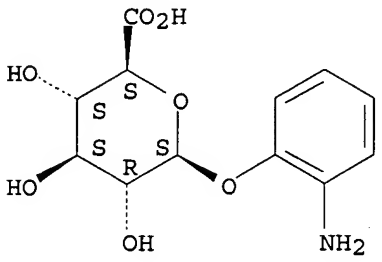
RN 21080-66-0 CAPLUS
CN β-D-Glucopyranosiduronic acid, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 36 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1973:107465 CAPLUS
DOCUMENT NUMBER: 78:107465
ORIGINAL REFERENCE NO.: 78:17231a,17234a
TITLE: Affinity chromatography of β-glucuronidase
AUTHOR(S): Harris, R. G.; Rowe, J. J. M.; Stewart, P. S.; Williams, D. C.
CORPORATE SOURCE: Res. Dep., Marie Curie Mem. Found., Oxted/Surrey, UK
SOURCE: FEBS Letters (1973), 29(2), 189-92
CODEN: FEBLAL; ISSN: 0014-5793
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The enrichment of β-glucuronidase by affinity chromatog., using the competitive inhibitor sucrose 1,4-lactone covalently coupled to Sepharose 4B through an α-ω diamine extension arm, is described. The extension arm could be either a long one (such as produced by coupling with 1-Et-3-(3-dimethylaminopropyl)carbodiimide) or a short one (produced by coupling with 1,2-diaminoethane), and the absorbant properties changed depending on the length. The synthetic substrate o-aminophenyl-β-D-glucuronide, when used as an affinity absorbant, gave a similar elution profile to the sucrose 1,4-lactone coupled by a long extension to Sepharose, but had a shorter life than the bound lactone columns.
IT 15959-03-2
RL: BIOL (Biological study)
(and β-glucuronidase affinity chromatography)
RN 15959-03-2 CAPLUS
CN β-D-Glucopyranosiduronic acid, 2-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 37 OF 38 MEDLINE on STN
ACCESSION NUMBER: 86077867 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2416355
TITLE: [Isolation of modification-restriction enzymes HpaI and HpaII].
Vydelenie fermentov modifikatsii-restriktsii HpaI i HpaII.
AUTHOR: Bogdarina I G; Zinkevich V E; Bur'ianov Ia I; Baev A A
SOURCE: Biokhimii a (Moscow, Russia), (1985 Oct) Vol. 50, No. 10, pp. 1659-64.
Journal code: 0372667. ISSN: 0320-9725.
PUB. COUNTRY: USSR
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198601
ENTRY DATE: Entered STN: 21 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 28 Jan 1986
AB A method for simultaneous isolation of four enzymes of modification-restriction of DNA from Haemophilus parainfluenzae is proposed. The properties of HpaI and HpaII DNA-methylases were investigated.

L7 ANSWER 38 OF 38 MEDLINE on STN
ACCESSION NUMBER: 83257461 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6409168
TITLE: [Antibodies against p-aminophenyl-beta-D-galactopyranoside-containing proteins].
Antitela k p-aminofenil-beta-D-galaktopiranozidsoderzhashchim belkam.
AUTHOR: Belen'kii D M; Shaptseva V N
SOURCE: Biokhimii a (Moscow, Russia), (1983 May) Vol. 48, No. 5, pp. 851-6.
Journal code: 0372667. ISSN: 0320-9725.
PUB. COUNTRY: USSR
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198309
ENTRY DATE: Entered STN: 19 Mar 1990
Last Updated on STN: 19 Mar 1990
Entered Medline: 9 Sep 1983
AB The antibodies were prepared from antisera of rabbits immunized with bovine serum albumin containing covalently bound p-aminophenyl-beta-D-galactopyranoside (APG) and purified by affinity chromatography on APG-containing ovalbumin immobilized by BrCN-activated Sepharose 4B. The antibodies possessed a selective specificity for APG and interacted with different APG-containing proteins, including

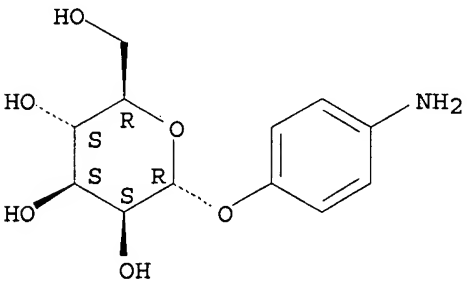
APG-containing lysosomal alpha-glucosidase. The purified antibodies are immunoglobulins of G type as was determined from the molecular weights of native and dissociated antibodies and from the immunochemical assays with antibodies against rabbit IgG.

L7 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1983:2452 CAPLUS
DOCUMENT NUMBER: 98:2452
ORIGINAL REFERENCE NO.: 98:447a,450a
TITLE: Affinity electrophoresis: new simple and general methods of preparation of affinity gels
AUTHOR(S): Horejsi, Vaclav; Ticha, Marie; Tichy, Pavel; Holy, Antonin
CORPORATE SOURCE: Inst. Mol. Genet., Czech. Acad. Sci., Prague, 1083, Czech.
SOURCE: Analytical Biochemistry (1982), 125(2), 358-69
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two simple and generally applicable methods of preparation of affinity gels for affinity electrophoresis in agarose and polyacrylamide gels are described. In the first method, amino ligands are coupled to periodate-oxidized agarose gel beads (Sepharose 4B), and homogeneous affinity gels are obtained after mixing the melted substituted beads with either melted agarose solution or with the polymerization mixture used for the preparation of polyacrylamide gels. This type of affinity gel was used for affinity electrophoresis of lectins (immobilized p-aminophenyl glycosides), RNase (immobilized uridine 3',5'-diphosphate 5'-p-aminophenyl ester), trypsin (immobilized p-aminobenzamidine), and double-stranded phage DNA fragments (immobilized acriflavine). Alternatively, heterogeneous affinity gels are prepared from the suspension of ligand-substituted agarose, dextran, or polyacrylamide gel beads in the polymerization solution normally used for preparation of polyacrylamide electrophoretic gels. This technique was used for affinity electrophoresis of lectins, RNase, and trypsin on affinity gels containing appropriate ligands coupled to the gel beads activated by various methods. Applicability of affinity gels prepared by the 2 methods described above for affinity isoelec. focusing is demonstrated.

IT 34213-86-0DP, agarose derivs.
RL: PREP (Preparation)
(preparation of, for affinity electrophoresis)
RN 34213-86-0 CAPLUS
CN α-D-Mannopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1982:506011 CAPLUS
DOCUMENT NUMBER: 97:106011
ORIGINAL REFERENCE NO.: 97:17555a,17558a
TITLE: Purification of enzymes by affinity chromatography
AUTHOR(S): Katoh, Shigeo; Shiozawa, Masami; Sada, Eizo
CORPORATE SOURCE: Chem. Eng. Dep., Kyoto Univ., Kyoto, 606, Japan
SOURCE: Polymer Science and Technology (Plenum) (1982), 16(Polym. Sep. Media), 79-86

CODEN: POSTB5; ISSN: 0093-6286
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Factors in the purification of trypsin and β-galactosidase on Sepharose 4B and 6B were studied. In the case of the ligand with relatively low affinity for the enzyme, the amount of the enzyme nonselectively eluted decreases with an increase in concentration of the buffer solution in which it is dissolved, whereas its purity increases. This conflict of requirements for high amount and high purity of the enzyme eluted may be circumvented by use of selective elution with inhibitors. Since the performance of affinity chromatog. depends also on the mass-transfer rate of the adsorbed component into the adsorbent, the degree of cross-linkage of the support should be selected depending on the mol. weight of the enzyme.

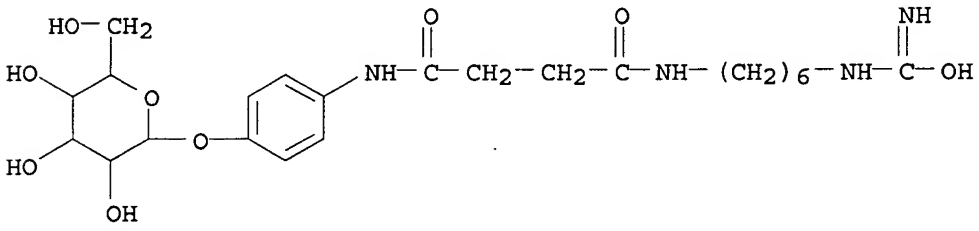
IT 76482-60-5
RL: BIOL (Biological study)
(affinity chromatog. of β-galactosidase on)

RN 76482-60-5 CAPLUS

CN Agarose, [6-[[4-[[4-(β-D-galactopyranosyloxy)phenyl]amino]-1,4-dioxobutyl]amino]hexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 173583-92-1
CMF C23 H36 N4 O9

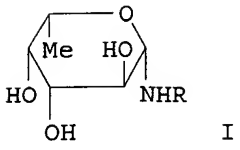


CM 2

CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1981:425452 CAPLUS
DOCUMENT NUMBER: 95:25452
ORIGINAL REFERENCE NO.: 95:4455a,4458a
TITLE: Covalent addition of biologically active agents to polymers. IV. Synthesis of ("affinity") adsorbents containing L-fucose derivatives
AUTHOR(S): Klyashchitskii, B. A.; Pozdnev, V. F.; Beier, E. M.
CORPORATE SOURCE: Inst. Biol. Med. Khim., Moscow, USSR
SOURCE: Zhurnal Obshchei Khimii (1981), 51(1), 204-9
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI



I

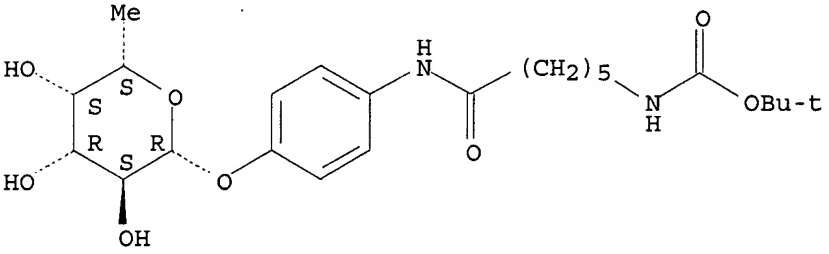
AB Treatment of fucopyranosylamine I (R = H) with R1NH(CH2)5CO2H (R1 = CO2CMe3) gave 84.2% I [R = CO(CH2)5NHR1] which was deblocked with HCl-dioxane followed by treatment with BrCN-modified Sepharose 4B to give I [R = CO(CH2)5NHC(:NH)OQ (Q = Sepharose polymer)] useful as an affinity adsorbent. A similar modified Sepharose 4B adsorbent was obtained from p-aminophenyl β-L-fucopyranoside.

IT 69936-59-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with bromocyano-modified sepharose)

RN 69936-59-0 CAPLUS

CN Carbamic acid, [6-[[4-[(6-deoxy-β-L-galactopyranosyl)oxy]phenyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

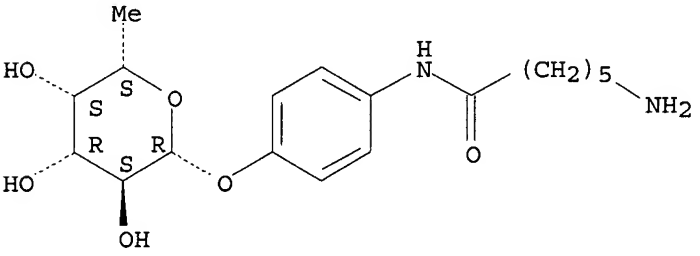


IT 77838-09-6DP, polymer-bound
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as affinity adsorbent)

RN 77838-09-6 CAPLUS

CN Hexanamide, 6-amino-N-[4-[(6-deoxy-β-L-galactopyranosyl)oxy]phenyl]- (CA INDEX NAME)

Absolute stereochemistry.

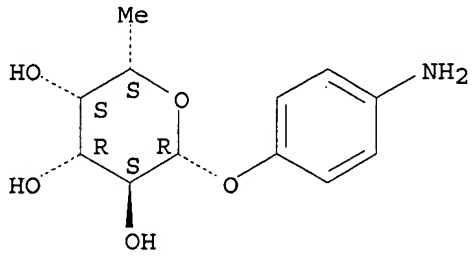


IT 69936-58-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (tert-butoxycarbonyl) aminohexanoic acid)

RN 69936-58-9 CAPLUS

CN β-L-Galactopyranoside, 4-aminophenyl 6-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

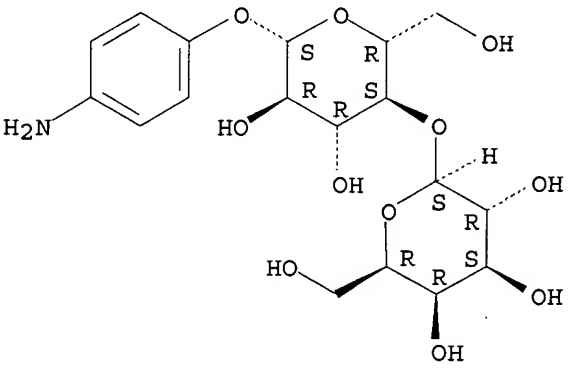


L7 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1981:402777 CAPLUS
DOCUMENT NUMBER: 95:2777
ORIGINAL REFERENCE NO.: 95:575a,578a
TITLE: A chemical method to enrich RNA by molecules having 5'-terminal triphosphate groups
AUTHOR(S): Chumakov, P. M.; Grachev, M. A.; Netesov, S. V.; Shatskii, I. N.
CORPORATE SOURCE: All-Union Sci.-Res. Inst. Mol. Biol., Novosibirsk, USSR
SOURCE: Nucleic Acids Research (1981), 9(6), 1519-30
CODEN: NARHAD; ISSN: 0305-1048
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A method is proposed to enrich RNA mols. having a 5'-terminal triphosphate group. The method is based upon selective chemical modification of 5'-triphosphate groups by an antigen-containing amine followed by affinity chromatog. on an adsorbent loaded with antibodies specific to this antigen. A purification factor up to 37 may be achieved.

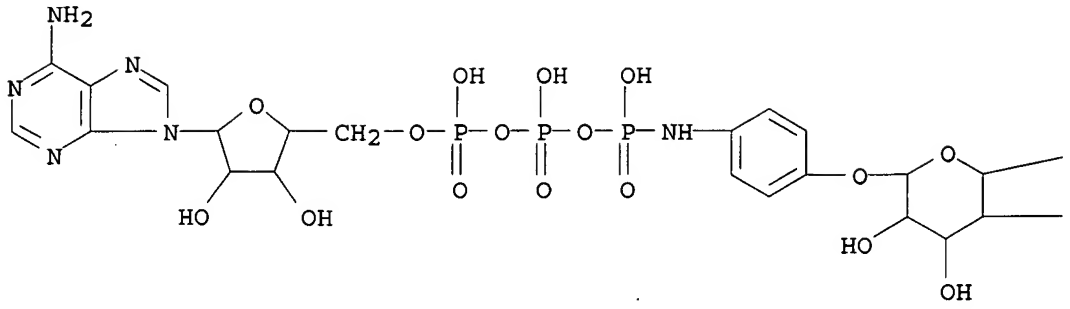
IT 17691-02-0P
RL: PREP (Preparation)
(preparation of and antibodies production to, for immunoaffinity chromatog. of
5'-terminal triphosphate-containing RNA)
RN 17691-02-0 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl 4-O-β-D-galactopyranosyl- (CA INDEX NAME)

Absolute stereochemistry.

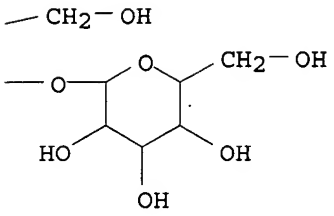


IT 77890-08-5P
RL: PREP (Preparation)
(preparation of, for 5'-terminal triphosphate-containing RNA production)
RN 77890-08-5 CAPLUS
CN Adenosine 5'-(trihydrogen diphosphate), monoanhydride with [4-[(4-O-β-D-galactopyranosyl-β-D-glucopyranosyl)oxy]phenyl]phos phoramidic acid (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L7 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1981:63450 CAPLUS
DOCUMENT NUMBER: 94:63450
ORIGINAL REFERENCE NO.: 94:10333a,10336a
TITLE: Improved procedures for purification of the Bandeiraea simplicifolia I isolectins and Bandeiraea simplicifolia II lectin by affinity chromatography
AUTHOR(S): Delmotte, Francis M.; Goldstein, Irwin J.
CORPORATE SOURCE: Dep. Biol. Chem., Univ. Michigan, Ann Arbor, MI, USA
SOURCE: European Journal of Biochemistry (1980), 112(2), 219-23
CODEN: EJBCAI; ISSN: 0014-2956
DOCUMENT TYPE: Journal
LANGUAGE: English

AB B. simplicifolia Plant seeds contain a family of 5 α-D-galactopyranosyl-binding isolectins (BS I-A4, A3B, A2B2, AB3, B4) and N-acetyl-D-glucosamine-binding lectin (BS II). After inorg P (Pi)/NaCl extraction and (NH4)2SO4 fractionation, BS II was adsorbed specifically onto p-aminobenzyl-1-thio-N-acetyl-β-D-glucosaminide-succinylaminohexylaminyl-Sepharose 4B. The BS I isolectins passed through this column, and BS II was eluted selectively by Pi/NaCl containing 2 mM N-acetyl-D-glucosamine or by 0.1M NaOAc buffer pH 3.6. The material not bound to the column was loaded onto p-aminophenyl-β-D-galactopyranosyl-succinylaminohexylaminyl-Sepharose 4B. BS I-A4 was eluted specifically in a sharp peak with Pi/NaCl containing 1 mM N-acetyl-D-galactosamine. Then BS I-A3B, A2B2, AB3, and B4 were eluted selectively, in a single peak for each isolectin, with Pi/NaCl containing 3, 8, 15, and 50 mM Me α-D-galactopyranoside, resp.

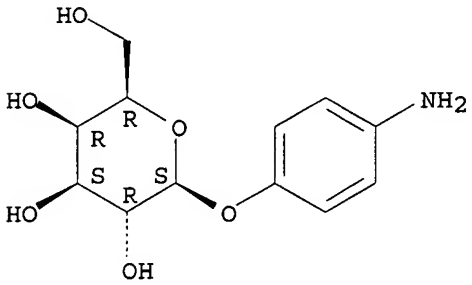
IT 5094-33-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(preparation and reaction of, with succinylaminohexylaminyl-Sepharose 4B)

RN 5094-33-7 CAPLUS

CN β-D-Galactopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



IT 76482-60-5P

RL: PREP (Preparation)
(preparation of, for affinity chromatog. of phytohemagglutinins of Bandeiraea simplicifolia)

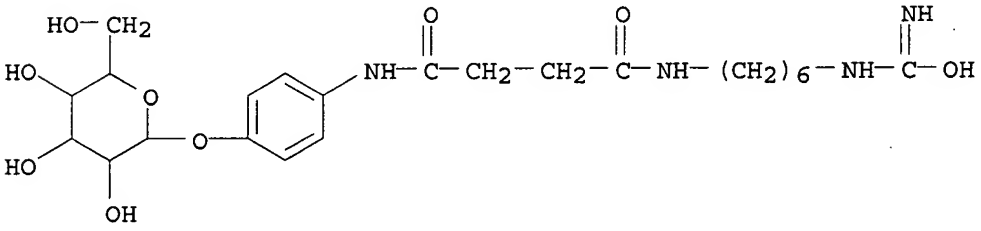
RN 76482-60-5 CAPLUS

CN Agarose, [6-[[4-[[4-(β-D-galactopyranosyloxy)phenyl]amino]-1,4-dioxobutyl]amino]hexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 173583-92-1

CMF C23 H36 N4 O9



CM 2

CRN 9012-36-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:414135 CAPLUS

DOCUMENT NUMBER: 91:14135

ORIGINAL REFERENCE NO.: 91:2307a,2310a

TITLE: Carbohydrate inhibitors of concanavalin A that inhibit binding of insulin-Sepharose to fat cells and antagonize and mimic insulin's bioactivity. A possible role for membrane carbohydrate in insulin's action

AUTHOR(S): Katzen, Howard M.

CORPORATE SOURCE: Merck Inst. Ther. Res., Rahway, NJ, 07065, USA

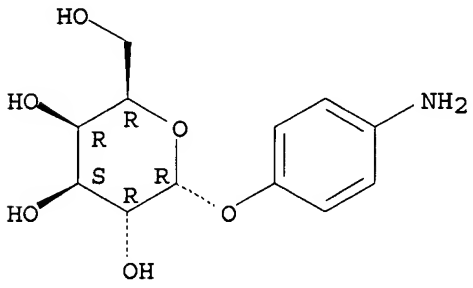
SOURCE: Journal of Biological Chemistry (1979), 254(8), 2983-92
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Various exogenously added glycoside derivs. inhibited the binding of insulin [9004-10-8]-Sepharose beads to insulin receptors on isolated intact rat fat cells with a specificity resembling that for concanavalin A (ConA) [11028-71-0]-Sepharose binding to these cells. A more limited number of glycosides tested also inhibited the binding of insulin-125I although some enhancement of binding that preceded the inhibition was observed for some of these saccharides. The glycosides also antagonized insulin-stimulated glucose [50-99-7] utilization by the cells, but in some cases also mimicked the hormone by stimulating glucose utilization. A few glycosides mimicked insulin without appearing to antagonize its bioactivity. Radiolabeled glycoside inhibitors failed to bind to insulin in equilibrium dialysis expts. although they readily bound to Con A, indicating that the glycosides act directly on the cell rather than on the insulin mol. The effects of the exogenously added glycosides (and Con A) may reflect the presence on the membrane of a native carbohydrate moiety by either mimicking or competitively inhibiting its ability to interact reversibly with a lectin-like carbohydrate binding site associated with the function of the insulin receptor.

IT 3398-86-5 5094-33-7 17691-00-8
20818-25-1 31302-52-0 34213-86-0
RL: BIOL (Biological study)
(insulin binding by adipose tissue inhibition by)

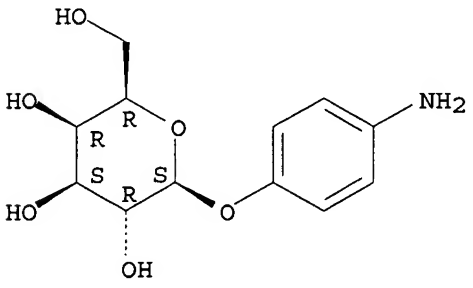
RN 3398-86-5 CAPLUS
CN α-D-Galactopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



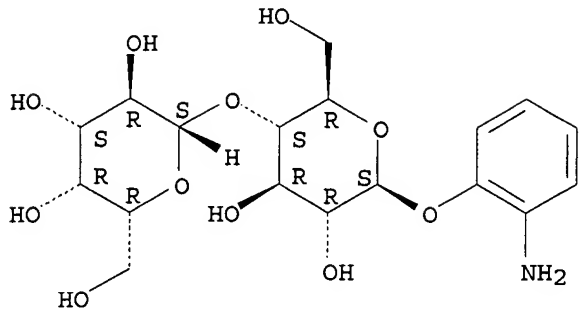
RN 5094-33-7 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



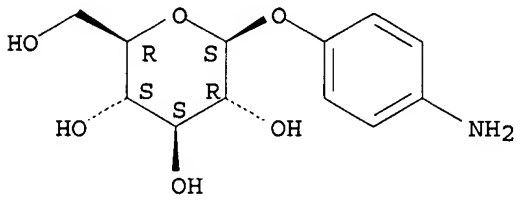
RN 17691-00-8 CAPLUS
CN β-D-Glucopyranoside, 2-aminophenyl 4-O-β-D-galactopyranosyl- (CA INDEX NAME)

Absolute stereochemistry.



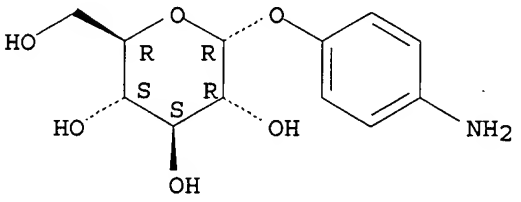
RN 20818-25-1 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



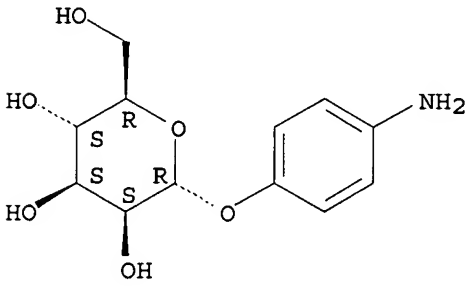
RN 31302-52-0 CAPLUS
CN α-D-Glucopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



RN 34213-86-0 CAPLUS
CN α-D-Mannopyranoside, 4-aminophenyl (CA INDEX NAME)

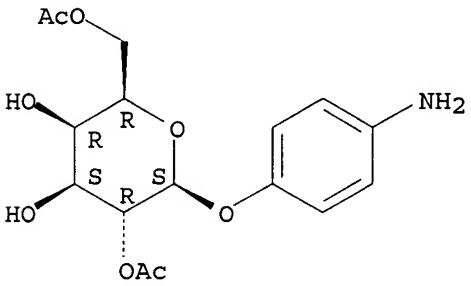
Absolute stereochemistry.



L7 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1979:187248 CAPLUS

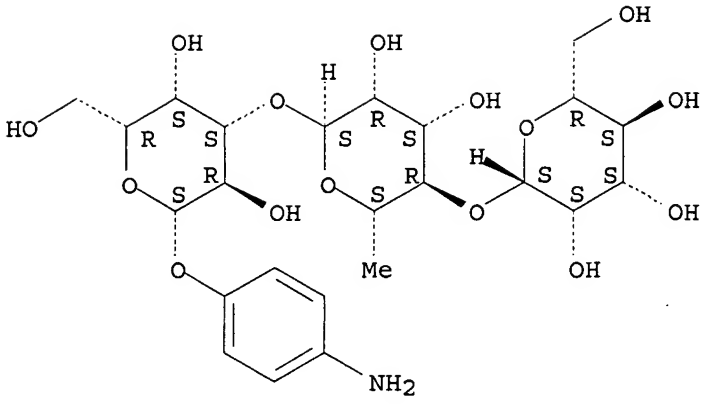
DOCUMENT NUMBER: 90:187248
ORIGINAL REFERENCE NO.: 90:29769a,29772a
TITLE: Synthesis of bacterial antigenic polysaccharides and their fragments. II. Synthesis of synthetic antigen with hapten groups, which represent the biologically repeating unit of Salmonella newington polysaccharide
AUTHOR(S): Kochetkov, N. K.; Dmitriev, B. A.; Chernyak, A. Ya.; Pokrovskii, V. I.; Tendetnik, Yu. Ya.
CORPORATE SOURCE: N. D. Zelinskii Inst. Org. Chem., Moscow, USSR
SOURCE: Bioorganicheskaya Khimiya (1979), 5(2), 217-27
CODEN: BIKHD7; ISSN: 0132-3423
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI For diagram(s), see printed CA Issue.
AB Synthetic trisaccharide I, prepared in 3 steps from p-nitrophenyl 2,6-di-O-acetyl-β-D-galactopyranoside, was coupled to edestin by the azo method to give an artificial antigen possessing all the structural elements of the biol. repeating unit of the species-specific polysaccharide of S. newington. Antisera obtained after immunization of rabbits with this antigen contained specific antibodies against the O-factor 3.
IT 70168-42-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with tri-Et orthoacetate)
RN 70168-42-2 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl, 2,6-diacetate (CA INDEX NAME)

Absolute stereochemistry.



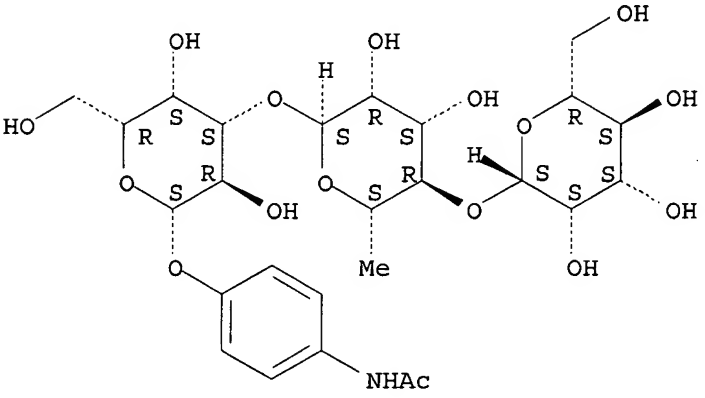
IT 70168-47-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetylation of)
RN 70168-47-7 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl O-β-D-mannopyranosyl-(1→4)-O-6-deoxy-α-L-mannopyranosyl-(1→3)- (CA INDEX NAME)

Absolute stereochemistry.



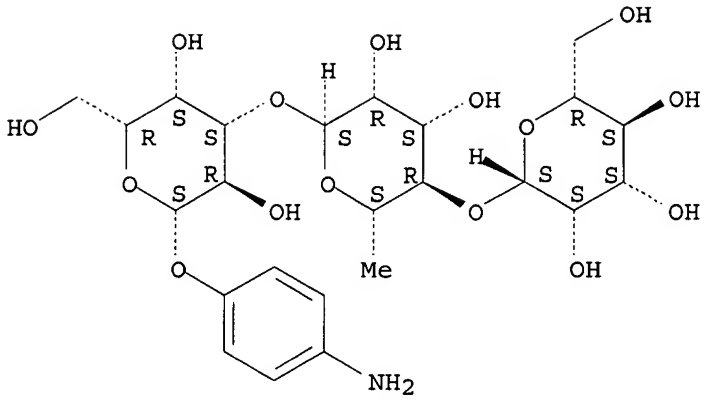
IT 70168-48-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and coupling with edestin and sepharose)
RN 70168-48-8 CAPLUS
CN Acetamide, N-[4-[(O-β-D-mannopyranosyl-(1→4)-O-6-deoxy-α-L-mannopyranosyl-(1→3)-β-D-galactopyranosyl)oxy]phenyl]- (CA INDEX NAME)

Absolute stereochemistry.



IT 70168-47-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 70168-47-7 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl O-β-D-mannopyranosyl-(1→4)-O-6-deoxy-α-L-mannopyranosyl-(1→3)- (CA INDEX NAME)

Absolute stereochemistry.



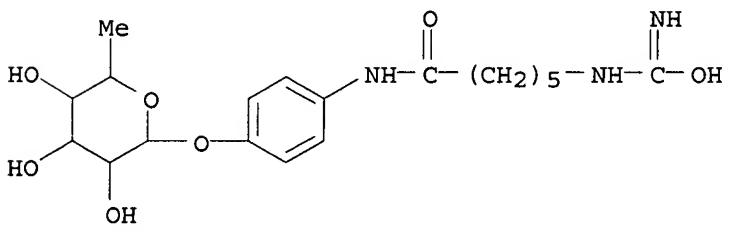
L7 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1979:163801 CAPLUS
DOCUMENT NUMBER: 90:163801
ORIGINAL REFERENCE NO.: 90:25951a,25954a
TITLE: Isolation and purification of biopolymers by affinity chromatography. III. Chromatography of human kidney α-L-fucosidase on affinity adsorbents containing L-fucose derivatives
AUTHOR(S): Beier, E. M.; Klyashchitskii, B. A.; Vidershain, G. Ya.
CORPORATE SOURCE: Inst. Biol. Med. Chem., Moscow, USSR
SOURCE: Bioorganicheskaya Khimiya (1979), 5(2), 268-79
CODEN: BIKHD7; ISSN: 0132-3423
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Chromatog. of human kidney α-L-fucosidase on a series of affinity adsorbents containing L-fucose derivs. and varying amts. of charged and hydrophobic groups was carried out. Nonspecific interactions were shown to operate in the enzyme adsorption. The crude enzyme preparation was purified .apprx.2600-fold with 40-50% yield by chromatog. on the biospecific adsorbent, N-ε-aminocaproyl)-β-L-fucopyranosylamine-Sepharose. Optimal conditions of the affinity purification of α-L-fucosidase and some general aspects of affinity chromatog. of glycosidases were discussed.

IT 69989-14-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and α-fucosidase affinity chromatog. on)
RN 69989-14-6 CAPLUS
CN Agarose, [6-[[4-[(6-deoxy-β-L-galactopyranosyl)oxy]phenyl]amino]-6-oxohexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 173243-93-1
CMF C19 H29 N3 O7

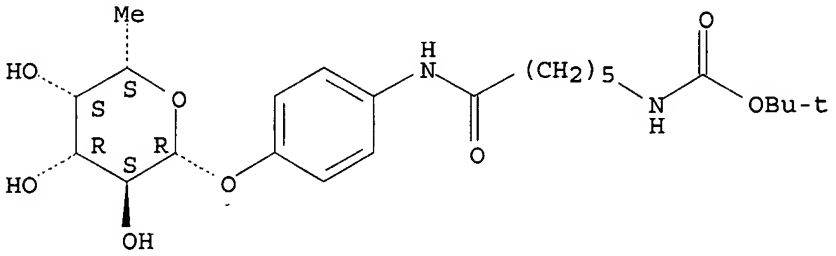


CM 2

CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

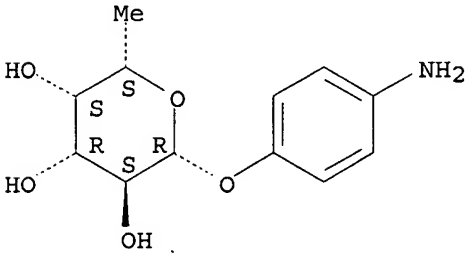
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 69936-59-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Sepharose)
RN 69936-59-0 CAPLUS
CN Carbamic acid, [6-[[4-[(6-deoxy-β-L-galactopyranosyl)oxy]phenyl]amino]-6-oxohexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 69936-58-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with butyloxycarbonylaminocaproic acid)
RN 69936-58-9 CAPLUS
CN β-L-Galactopyranoside, 4-aminophenyl 6-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1979:82798 CAPLUS
DOCUMENT NUMBER: 90:82798
ORIGINAL REFERENCE NO.: 90:13069a,13072a
TITLE: Action of endo-α-N-acetyl-D-galactosaminidase on synthetic glycosides including chromogenic substrates
AUTHOR(S): Umemoto, J.; Matta, K. L.; Barlow, J. J.; Bhavanandan, V. P.
CORPORATE SOURCE: Milton S. Hershey Med. Cent., Pennsylvania State Univ., Hershey, PA, USA
SOURCE: Analytical Biochemistry (1978), 91(1), 186-93
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The synthetic glycosides, p-nitrophenyl- and o-nitrophenyl-2-acetamido-2-deoxy-3-O-β-D-galactopyranosyl-α-D-galactopyranosides, were

effective chromogenic substrates for an endo-α-N-acetyl-D-galactosaminidase. No problems were encountered when these substrates were used for the screening of column fractions during the purification of the endoenzyme from Diplococcus pneumoniae culture filtrates. However, a combination of exo-β-galactosidase, capable of cleaving β(1→3) linkages, and an exo-α-N-acetylgalactosaminidase would also liberate nitrophenol from the above substrates. The enzyme had no action on several other synthetic glycosides tested, indicating the strict specificity of this enzyme. The enzyme was inactive when the aglycone was MeOH but showed activity against the glycosides of phenol, nitrophenols, serine, and threonine. The use of p-nitrophenyl-2-acetamido-2-deoxy-3-O-β-D-galactopyranosyl-β-D-galactopyranoside, which is a competitive inhibitor of the endoenzyme, as an affinity ligand for the purification of the enzyme is described.

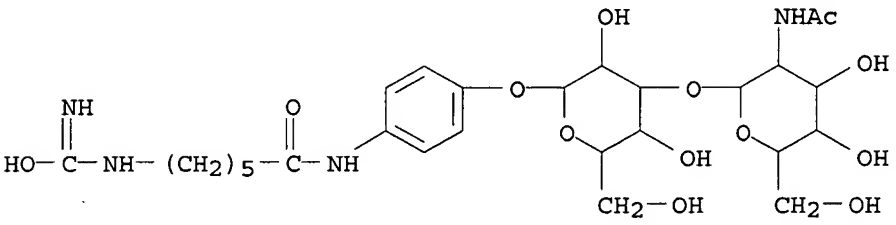
IT 69235-49-0 69240-63-7D, Sepharose CL6B
complexes
RL: BIOL (Biological study)
(affinity chromatog. of endoacetylgalactosaminidase on)

RN 69235-49-0 CAPLUS

CN Agarose, [6-[[4-[[3-O-[2-(acetylamino)-2-deoxy-β-D-galactopyranosyl]-α-D-galactopyranosyl]oxy]phenyl]amino]-6-oxohexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 172723-50-1
CMF C27 H42 N4 O13



CM 2

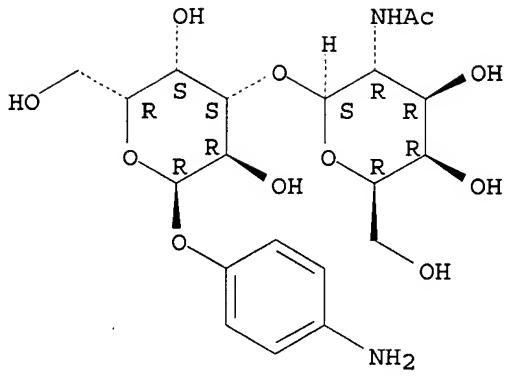
CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 69240-63-7 CAPLUS

CN α-D-Galactopyranoside, 4-aminophenyl 3-O-[2-(acetylamino)-2-deoxy-β-D-galactopyranosyl]- (CA INDEX NAME)

Absolute stereochemistry.

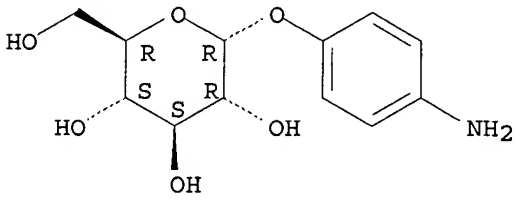


L7 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1979:18166 CAPLUS
DOCUMENT NUMBER: 90:18166
ORIGINAL REFERENCE NO.: 90:2963a,2966a
TITLE: Isolation of acid α-glucosidase from human spleen
AUTHOR(S): Belen'kii, D. M.; Kuznetsov, A. A.
CORPORATE SOURCE: Inst. Biol. Med. Chem., Moscow, USSR
SOURCE: Biokhimiya (Moscow) (1978), 43(10), 1764-75
CODEN: BIOHAO; ISSN: 0006-307X
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB A efficient method for isolation of acid α-glucosidase from human spleen is described. The method involves chromatog. of the enzyme on p-aminophenyl-α-D-glucopyranoside covalently bound to CH-Sepharose 4B, with subsequent gel-filtration on Sephadex G-200. The enzyme was homogeneous by polyacrylamide gel electrophoresis; it was purified .apprx.1500-fold in 12.5% yield. In addition to acid α-glucosidase, α-L-fucosidase, α-D-galactosidase, and β-acetylglucosaminidase were isolated and purified 200-, 130-, and 280-fold, resp. The nature of the interaction between acid α-glucosidase and immobilized p-aminophenyl-α-glucopyranoside is discussed.

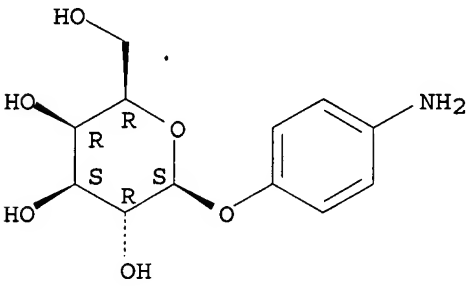
IT 31302-52-0D, reaction product with CH-Sepharose 4B
RL: BIOL (Biological study)
(in α-glucosidase purification)
RN 31302-52-0 CAPLUS
CN α-D-Glucopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:674092 CAPLUS
DOCUMENT NUMBER: 115:274092
TITLE: Purification and characterization of a sea squirt β-galactosidase
AUTHOR(S): Shigeta, Seiko; Ono, Kazuhisa; Oka, Satoru
CORPORATE SOURCE: Fac. Eng., Hiroshima Univ., Higashi-Hiroshima, 724, Japan
SOURCE: Journal of Biochemistry (Tokyo, Japan) (1991), 110(1), 136-40
CODEN: JOBIAO; ISSN: 0021-924X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A β-galactosidase was extracted from the internal organs of a sea squirt, Styela plicata, and purified 959-fold, with an 18% yield, by successive gel chromatog., anion-exchange chromatog., chromatofocusing, and affinity chromatog. on a Con A-Sepharose column. The purified enzyme was fairly homogeneous, as judged by disk PAGE, SDS-PAGE, and gel chromatog. on a Sephadex G-200 column. The mol. weight of the enzyme was estimated to be 77,000 and 75,000 by gel chromatog. and SDS-PAGE, resp., and its isoelec. point was determined to be 4.9 by isoelec. focusing. The enzyme was substantially stable in the pH range 3.5-7.5, the optimum pH being 4.0. The enzyme was significantly inhibited by 9 mM HgCl2 and 9 mM DFP, while the inhibition by 0.9% p-chloromercuribenzoate was only 60% at 0° for 30 min. The purified β-galactosidase apparently liberated galactose from a sea squirt antigen (H-antigen), two allergenically active glycopeptides (Gp-1 and Gp-2) derived from another sea squirt antigen (Gi-rep), asialo-ovomucoid glycopeptide, asialo-fetuin glycopeptide, GA1, CDH, and an ABEE-derivative (Galβ1→3ThrNAc-ABEE) of Galβ1-3GalNAc-ol isolated from bovine submaxillary gland mucin.
IT 5094-33-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with galactosidase of Styela plicata, kinetics of)
RN 5094-33-7 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:2846 CAPLUS
DOCUMENT NUMBER: 114:2846
TITLE: Influence of type of linkage and spacer on the interaction of β-galactoside-binding proteins with immobilized affinity ligands·
AUTHOR(S): Gabius, Hans Joachim
CORPORATE SOURCE: Abt. Chem., Max-Planck-Inst. Exp. Med., Goettingen, D-3400, Germany
SOURCE: Analytical Biochemistry (1990), 189(1), 91-4
CODEN: ANBCA2; ISSN: 0003-2697
DOCUMENT TYPE: Journal

LANGUAGE: English

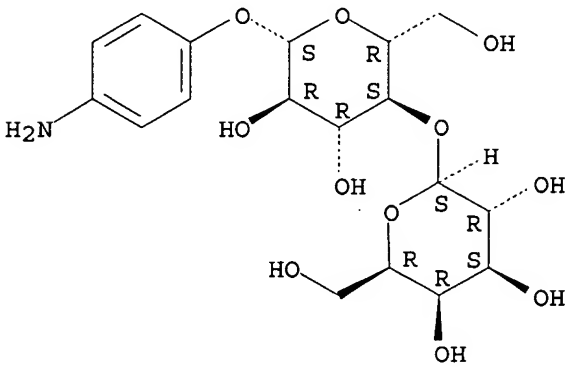
AB Affinity chromatog. provides a powerful tool for isolation of carbohydrate-binding proteins. However, the choice of the ligand and spacer has an important impact on effectiveness. The influence of several different ligands on qual. and quant. aspects of the purification of 2 β-galactoside-specific lectins has been evaluated. Sepharose was modified by coupling 4 types of neoglycoproteins (galactosylated or lactosylated bovine serum albumin with increasing sugar content) and 2 naturally occurring asialoglycoproteins at similar densities. Carbohydrate ligands at essentially equal d. were made accessible to the lectins by 7 commonly used methods. The yield of mistletoe lectin was high when lactosylated neoglycoproteins were used for separation For these resins the sugar incorporation exceeded 10 sugar groups per protein carrier mol. The yield was similarly high with the asialoglycoproteins and with lactose; the sugar was coupled to the resin as a p-aminophenyl derivative or by means of divinyl sulfone activation. An epoxy group in linkages of galactose or lactose decreased the binding capacity. A quant. similar degree of protein yields was obtained for the β-galactoside-binding protein of bovine heart, although different proteins were obtained when neoglycoproteins were used as ligand. The nature of the affinity ligand in lectin purification can increase the yield and may also influence the profile of the carbohydrate-binding proteins.

IT 17691-02-0D, reaction products with Sepharose
RL: ANST (Analytical study)
(for β-galactoside-binding proteins isolation)

RN 17691-02-0 CAPLUS

CN β-D-Glucopyranoside, 4-aminophenyl 4-O-β-D-galactopyranosyl- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:429178 CAPLUS

DOCUMENT NUMBER: 113:29178

TITLE: Self-regulated glycosylated insulin delivery

AUTHOR(S): Kim, Sung Wan; Pai, Chaul Min; Makino, Kimiko; Seminoff, Leah A.; Holmberg, David L.; Gleeson, Jeremy M.; Wilson, Dana E.; Mack, Eric J.

CORPORATE SOURCE: Cent. Controlled Chem. Delivery, Univ. Utah, Salt Lake City, UT, 84112, USA

SOURCE: Journal of Controlled Release (1990), 11(1-3), 193-201
CODEN: JCREEC; ISSN: 0168-3659

DOCUMENT TYPE: Journal

LANGUAGE: English

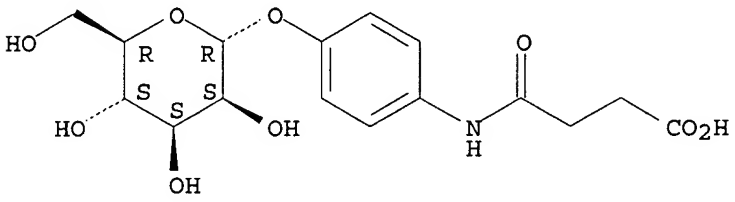
AB A self-regulating insulin delivery system, based on the concept of competitive binding between synthetic glycosylated insulin (G-insulin) and glucose to Con A (Con A) ligand substrate, was designed. The competitive binding of the 2 ligands for the substrate regulates G-insulin release in

relation to the outside glucose concentration, while a polymeric membrane, serving as a peritoneal implant pouch containing G-insulin and Con A, is used to control the permeability of glucose influx and G-insulin efflux. Mono-, di- and tri-sugar substituted insulins were characterized. The nonimmunogenicity, bioactivity and pharmacodynamics activity of succinyl amidophenyl glucopyranoside insulin (SAPG-insulin) and succinyl adidophenyl manopyranoside insulin (SAPG-insulin) and succinyl amidophenyl manopyranoside insulin (SAPM-insulin) were comparable to unsubstituted bovine insulin. Initial systems were based on SAPG- or SAPM-insulin with water soluble Con A tetramer contained in pouches of porous p-HEMA or cellulose acetate. A second system was designed with Con A immobilized beads (to prevent Con A leakage) and cellulose acetate or Nucleopore membranes. A new system was designed by crosslinking the Con A mols. to create a gel and enclosing the insulin and gel in a pouch of Durapore membrane (heat sealable and having comparable permeability to G-insulins and glucose). The fabricated pouch in vitro showed a short lag time in response to glucose with no leakage of Con A mols. An alternative system of Con A and SAPG-insulin loaded into microcapsules of demonstrated a short lag time for insulin release due to the large surface area of the microcapsules.

IT 91290-60-7D, reaction products with insulin 91290-61-8D, reaction products with insulin 127931-36-6D, reaction products with insulin 127931-37-7D, reaction products with insulin
RL: BIOL (Biological study)
(self-regulated delivery system containing)

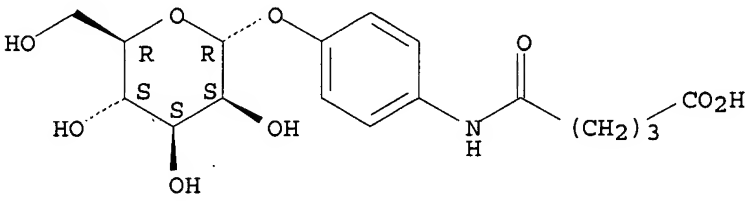
RN 91290-60-7 CAPLUS
CN Butanoic acid, 4-[[4-(α-D-mannopyranosyloxy)phenyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



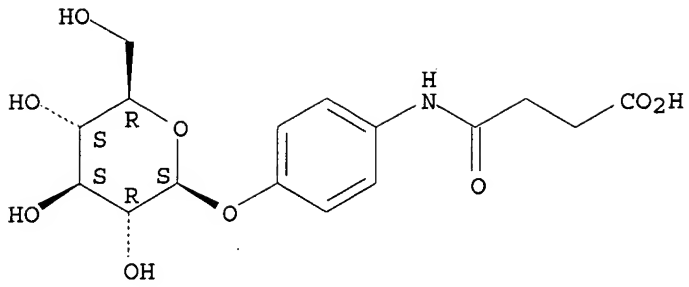
RN 91290-61-8 CAPLUS
CN Pentanoic acid, 5-[[4-(α-D-mannopyranosyloxy)phenyl]amino]-5-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



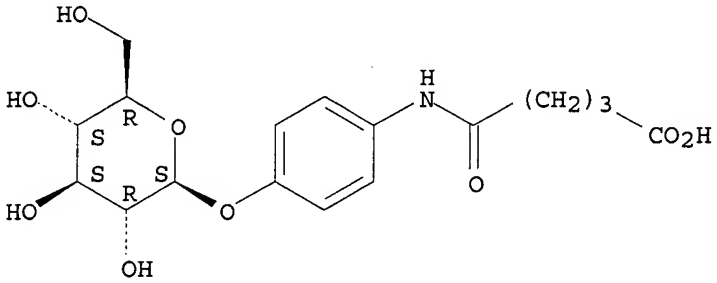
RN 127931-36-6 CAPLUS
CN Butanoic acid, 4-[[4-(β-D-glucopyranosyloxy)phenyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 127931-37-7 CAPLUS
CN Pentanoic acid, 5-[[4-(β-D-glucopyranosyloxy)phenyl]amino]-5-oxo-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:611523 CAPLUS
DOCUMENT NUMBER: 111:211523
TITLE: Enzyme controlled release system and organic conjugate reactant
INVENTOR(S): Arnost, Michael J.; Meneghini, Frank; Palumbo, Paul S.
PATENT ASSIGNEE(S): Polaroid Corp., USA
SOURCE: PCT Int. Appl., 97 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8805827	A1	19880811	WO 1987-US2592	19871005
W: JP				
RW: DE, FR, GB, IT, NL				
US 5034317	A	19910723	US 1987-8939	19870130
EP 299985	A1	19890125	EP 1987-907075	19871005
EP 299985	B1	19940316		
R: DE, FR, GB, IT, NL				
JP 01501915	T	19890706	JP 1987-506531	19871005
JP 07121236	B	19951225		
CA 1302252	C	19920602	CA 1987-550886	19871103

PRIORITY APPLN. INFO.: US 1987-8939 A 19870130
WO 1987-US2592 W 19871005

OTHER SOURCE(S): MARPAT 111:211523
GI

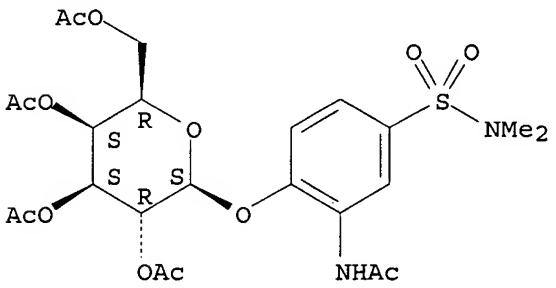
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB An enzyme-controlled release system for the release of an identifiable ligand comprises (a) an active enzyme able to cleave a substrate from an organic conjugate composition; and (b) an organic conjugate composition I [W = omitted, or number of atoms necessary to form a(n) (un)saturated cyclic mol; X, X' = H, (un)substituted hydrocarbon; Y = 0-5 C; U, U' = H, covalent bond; V, V' = omitted, [C(R2)(R3)]pJ[C(R4)(R5)]t; J = C(R6)(R7), O, S, NR8; R2-8 = H, C1-6 alkyl, aryl; Q, Z = O, S, NH, NR'; R',M organic moiety; L = substrate cleavable by said enzyme; R1 = H, substituent affecting mobility or reactivity of the conjugate composition; Z-M = identifiable fragment released by intramol. displacement after enzymic cleavage of L; a, b, d, e = 0, 1; p, t = 0-3; p + t = 0-3] or II (Q, L, Z-M, R1 as above; R8 = organic moiety). V (R' = CO(CH)2)2CO2H) (preparation of related compound described) 1.6 mM (1 mL) was mixed with 1.0 + 10-12 M β-galactosidase in 100 mM citrate phosphate buffer and 0.5 mL of this solution showed a 1.5% increase in signal strength when monitored for 10 min by a fluorometer with settings of excitation 540, emission 580, and slit width 5 nm. No increase in signal strength was seen with substrate alone.

IT 123687-05-8P 123687-06-9P 123687-13-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in preparation of enzyme controlled release system)

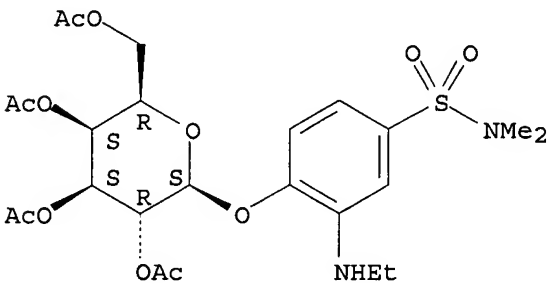
RN 123687-05-8 CAPLUS
CN Acetamide, N-[5-[(dimethylamino)sulfonyl]-2-[(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl)oxy]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 123687-06-9 CAPLUS
CN Benzenesulfonamide, 3-(ethylamino)-N,N-dimethyl-4-[(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl)oxy]- (CA INDEX NAME)

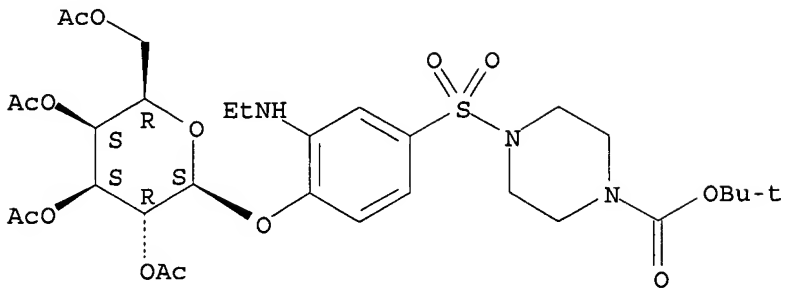
Absolute stereochemistry.



RN 123687-13-8 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[3-(ethylamino)-4-[(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl)oxy]phenyl]sulfonyl]-, 1,1-dimethylethyl ester

(CA INDEX NAME)

Absolute stereochemistry.



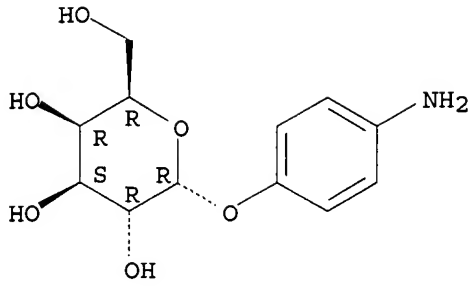
L7 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1988:419034 CAPLUS
DOCUMENT NUMBER: 109:19034
TITLE: Identification of a galactose-binding lectin on Fusobacterium nucleatum FN-2
AUTHOR(S): Murray, Patricia A.; Kern, David G.; Winkler, James R.
CORPORATE SOURCE: Dep. Stomatol., Univ. California, San Francisco, CA, 94143-0515, USA
SOURCE: Infection and Immunity (1988), 56(5), 1314-19
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The mol. specificity and size of the galactose-binding protein (lectin) on the cell surface of F. nucleatum FN-2 were investigated. Whole-cell affinity chromatog. with asialofetuin covalently coupled to Sepharose 6MB demonstrated that 81% of 3H-labeled F. nucleatum were specifically eluted by 0.5 M galactose. Specific binding was Ca-dependent and did not occur in the presence of Ca chelators. Binding was inhibited by preincubation with galactose. Agglutination of human parotid saliva by F. nucleatum was also inhibited by galactose and its structural analogs. The hierarchy of inhibition was: asialoglycopeptides >> p-aminophenyl galactosides > lactose > galactose. Apparently, the binding specificity of F. nucleatum FN-2 is more complex than simply the recognition of the monosaccharide galactose. This is consistent with the concept that lectins considered identical in terms of monosaccharide specificity can recognize fine differences in more complex structures. To identify the specific bacterial component(s) involved in galactose recognition, proteins of F. nucleatum FN-2 were separated on a 4-11% gradient SDS slab gel, transferred to nitrocellulose paper to renature bacterial binding sites, and then incubated with 125I-labeled asialofetuin. Autoradiographs of the nitrocellulose revealed a band at a range of 300,000 to 330,000 mol. weight which was not present when the blots were preincubated with galactose. Apparently, F. nucleatum FN-2 possesses a lectin that recognizes galactose and galactose-containing substrates.

IT 3398-86-5, p-Aminophenyl-α-galactopyranoside
5094-33-7, p-Aminophenyl-β-galactopyranoside
RL: BIOL (Biological study)
(galactose-binding lectin of Fusobacterium nucleatum agglutination of parotid saliva inhibition by)

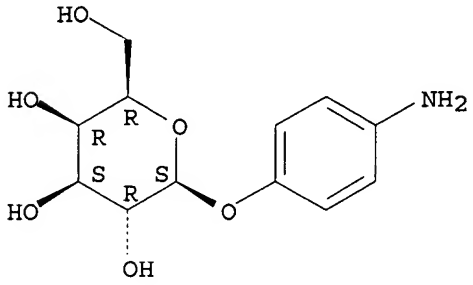
RN 3398-86-5 CAPLUS
CN α-D-Galactopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



RN 5094-33-7 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.

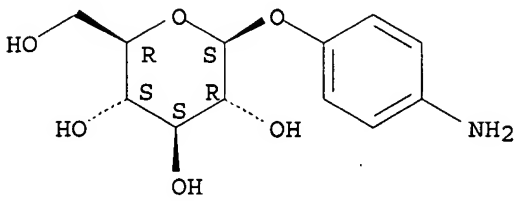


L7 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:30813 CAPLUS
DOCUMENT NUMBER: 104:30813
ORIGINAL REFERENCE NO.: 104:4993a,4996a
TITLE: Rat intestinal brush border membrane trehalase: some properties of the purified enzyme
AUTHOR(S): Riby, Jacques; Galand, Guy
CORPORATE SOURCE: Lab. Physiol. Anim., UER Sci. Exactes Nat., Reims, 51062, Fr.
SOURCE: Comparative Biochemistry and Physiology, Part B: Biochemistry & Molecular Biology (1985), 82B(4), 821-7
CODEN: CBPBB8; ISSN: 0305-0491
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Rat intestinal brush border trehalase (EC 3.2.1.28) (I) solubilized by Triton X-100 or Emulphogen BC 720 was purified almost to homogeneity in a 5-step procedure including DEAE-cellulose and Sephadex G-200 chromatog., preparative flat bed electrofucosing, and hydroxylapatite chromatog. The apparent mol. weight was estimated to be .apprx.65,500 by mannitol d. gradient ultracentrifugation. The optimum pH of I was 5.5-5.7 in phosphate, maleate, or citrate buffers. The apparent Km for trehalose was 10 mM in maleate buffer at pH 6.0. The pI was 4.9. Tris, p-aminophenylglucoside, sucrose, and maltose were fully competitive inhibitors with Ki values of 2.2, 1.8, 7.7, and 170 mM, resp. I inhibition by phloridzin appeared to be of the mixed type, with a Ki of 1.7 mM. I was heat stable up to 50° and the activation energy was 10.96 kcal/mol. Schiff staining on polyacrylamide gels and interaction with concanavalin A-Sepharose indicated that rat I is a glycoprotein.

IT 20818-25-1
RL: BIOL (Biological study)
(trehalase of intestine brush border membrane inhibition by, kinetics of)
RN 20818-25-1 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

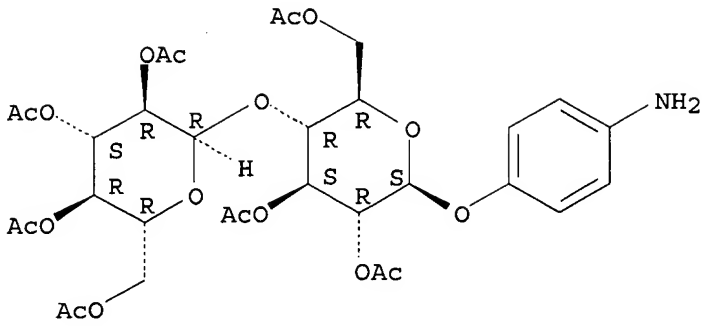


L7 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1984:546746 CAPLUS
DOCUMENT NUMBER: 101:146746
ORIGINAL REFERENCE NO.: 101:22169a,22172a
TITLE: β-Thiomaltosides as active site probes for α-amylase
AUTHOR(S): Stankiewicz, Paul J.; Cascio, Duilio; McPherson, Alexander
CORPORATE SOURCE: Dep. Biochem., Univ. California, Riverside, CA, 92521, USA
SOURCE: Journal of Applied Biochemistry (1983), 5(6), 388-98
CODEN: JABIDV; ISSN: 0161-7354
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of substituted 1-thio-β-D-maltopyranosides was synthesized, and their identities were confirmed by elemental anal., optical rotation, NMR, and liquid chromatog. These compds. were shown by several biochem. techniques to bind to the active site of α-amylase. Steady-state kinetic studies showed the compds. to be competitive inhibitors, with affinities lying within the range of the natural ligands, maltose and maltotriose. Affinity chromatog. employing p-aminophenyl-1-thio-β-D-maltopyranoside linked to Sepharose provided a relatively simple procedure for α-amylase purification The binding of p-bromophenyl-1-thio-β-D-maltoside was observed in crystals of α-amylase, using x-ray crystallog., and through the use of difference Fourier anal. its interaction at 5.0-Å resolution with the active site of the enzyme was visualized. The inhibitor bound in a long, deep cleft that divided the 2 major domains of the enzyme. These studies are believed to provide a 1st step toward the rational design of ligands for the physiol. regulation of starch breakdown and utilization through modulation of α-amylase activity.

IT 87956-89-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and deacetylation of)
RN 87956-89-6 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl 4-O-(2,3,4,6-tetra-O-acetyl-α-D-glucopyranosyl)-, 2,3,6-triacetate (CA INDEX NAME)

Absolute stereochemistry.

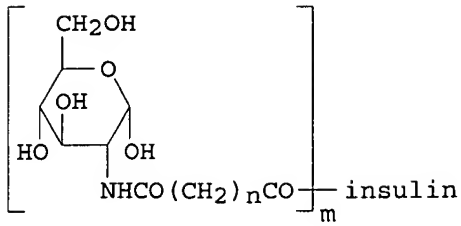


L7 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1984:473054 CAPLUS
DOCUMENT NUMBER: 101:73054
ORIGINAL REFERENCE NO.: 101:11285a,11288a
TITLE: Glycosylated insulin derivatives
INVENTOR(S): Kim, Wan S.; Jeong, Seo Y.; McRea, James C.
PATENT ASSIGNEE(S): University of Utah, USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

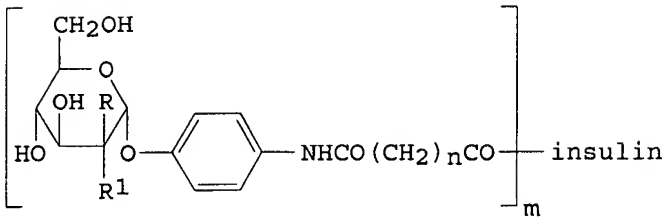
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4444683	A	19840424	US 1982-442362	19821117
US 4536572	A	19850820	US 1983-532676	19831102
WO 8401896	A1	19840524	WO 1983-US1780	19831115
W: CH, DE, GB, JP, NL, SE				
RW: AT, BE, CH, DE, FR, GB, LU, NL, SE				
EP 125299	A1	19841121	EP 1983-903886	19831115
EP 125299	B1	19890719		
R: AT, BE, CH, DE, FR, GB, LI, LU, NL, SE				
JP 59502065	T	19841213	JP 1984-500051	19831115
JP 06013556	B	19940223		
EP 312127	A2	19890419	EP 1988-120072	19831115
EP 312127	A3	19910925		
EP 312127	B1	19940504		
R: AT, BE, CH, DE, FR, GB, LI, LU, NL, SE				
AT 44649	T	19890815	AT 1983-903886	19831115
AT 105296	T	19940515	AT 1988-120072	19831115
CA 1216578	A1	19870113	CA 1983-441330	19831116
US 4483792	A	19841120	US 1983-532915	19831220
US 4478746	A	19841023	US 1984-532697	19840206
US 4478830	A	19841023	US 1984-532917	19840206
US 4489063	A	19841218	US 1984-532681	19840206
US 4489064	A	19841218	US 1984-532696	19840206
DK 8500518	A	19850807	DK 1985-518	19850205

PRIORITY APPLN. INFO.:			
US 1982-442362	A3	19821117	
EP 1983-903886	P	19831115	
EP 1988-120072	A	19831115	
WO 1983-US1780	W	19831115	
US 1984-532697	A	19840206	

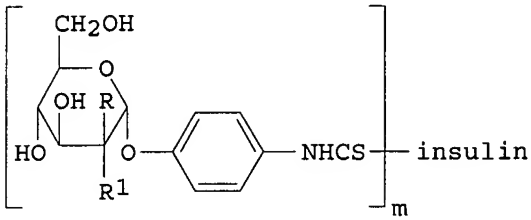
OTHER SOURCE(S): MARPAT 101:73054
GI



I



II



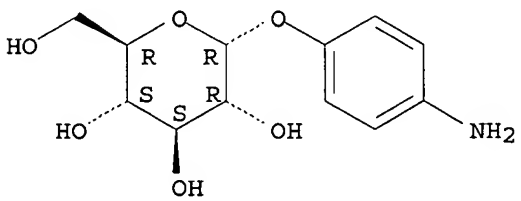
III

AB Glycosylated insulins I (m = 1-3; n = 2-6), II (R = R1 = H, OH; m = 1-3; n = 2-6), and III (same R, R1, and m) were prepared Thus, glucosamine.HCl was treated with succinic anhydride in Me2CO containing Et3N to give 39% N-succinylglucosamine (IV). Bovine insulin (87.77 μmol) dissolved in DMF and adjusted to pH 9.5 with NaOH, was treated with IV (800 μmol) dissolved in DMF containing Bu3N and iso-Bu chloroformate to give glucosamidosuccinylinsulin, which was purified by dialysis and affinity chromatog. on a column of concanavalin-A bound to Sepharose 4B. I, II, and III resisted aggregation and significantly depressed blood sugar levels in rats (data given).

IT 31302-52-0P 34213-86-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amidation of, with succinic anhydride or glutaric anhydride)

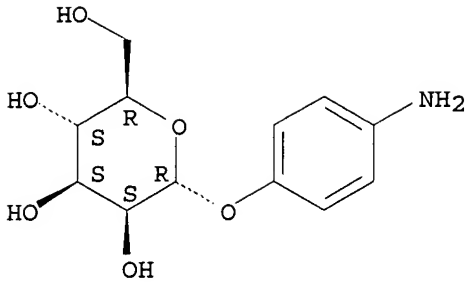
RN 31302-52-0 CAPLUS
CN α-D-Glucopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



RN 34213-86-0 CAPLUS
CN α-D-Mannopyranoside, 4-aminophenyl (CA INDEX NAME)

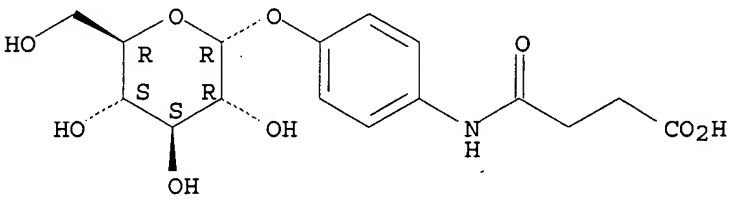
Absolute stereochemistry.



IT 91290-58-3P 91290-59-4P 91290-60-7P
91290-61-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and coupling of, with insulin)

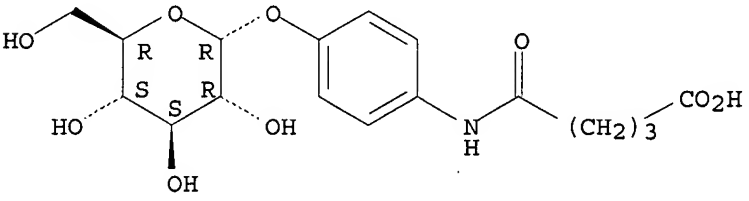
RN 91290-58-3 CAPLUS
CN Butanoic acid, 4-[[4-(α-D-glucopyranosyloxy)phenyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



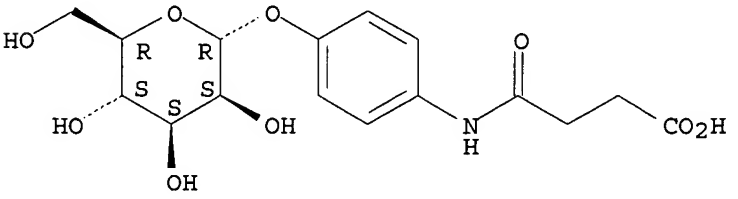
RN 91290-59-4 CAPLUS
CN Pentanoic acid, 5-[[4-(α-D-glucopyranosyloxy)phenyl]amino]-5-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 91290-60-7 CAPLUS
CN Butanoic acid, 4-[[4-(α-D-mannopyranosyloxy)phenyl]amino]-4-oxo- (9CI) (CA INDEX NAME)

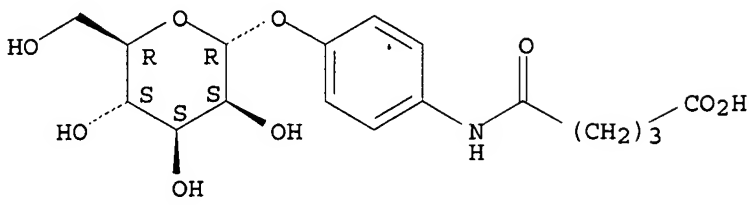
Absolute stereochemistry.



RN 91290-61-8 CAPLUS
CN Pentanoic acid, 5-[[4-(α-D-mannopyranosyloxy)phenyl]amino]-5-oxo-

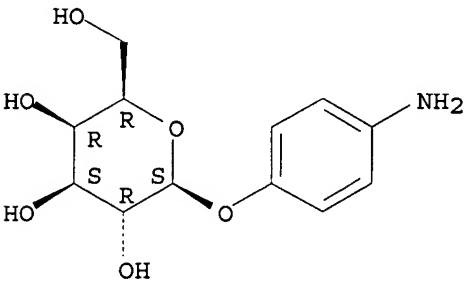
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1983:420744 CAPLUS
DOCUMENT NUMBER: 99:20744
ORIGINAL REFERENCE NO.: 99:3345a,3348a
TITLE: Antibodies against p-aminophenyl-β-D-galactopyranoside-containing proteins
AUTHOR(S): Belen'kii, D. M.; Shaptseva, V. N.
CORPORATE SOURCE: Inst. Biol. Med. Chem., Moscow, USSR
SOURCE: Biokhimiya (Moscow) (1983), 48(5), 851-6
CODEN: BIOHAO; ISSN: 0006-307X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The antibodies were prepared from antisera of rabbits immunized with bovine serum albumin containing covalently bound p-aminophenyl-β-D-galactopyranoside (APG) and purified by affinity chromatog. on APG-containing ovalbumin immobilized by BrCN-activated Sepharose 4B. The antibodies were specific for APG and interacted with different APG-containing proteins, including APG-containing lysosomal α-glucosidase. The purified antibodies are IgG as was determined from the mol. wts. of native and dissociated antibodies and from the immunochem. assays with antibodies against rabbit IgG.
IT 5094-33-7
RL: BIOL (Biological study)
(proteins containing, IgG antibodies against, preparation of)
RN 5094-33-7 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



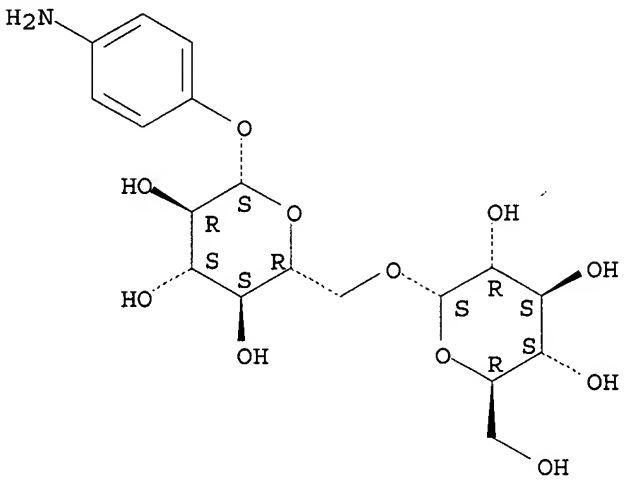
L7 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1983:123959 CAPLUS
DOCUMENT NUMBER: 98:123959
ORIGINAL REFERENCE NO.: 98:18877a,18880a
TITLE: The isolation and characterization of a mouse myeloma protein with anti-dextran activity
AUTHOR(S): Pazur, John H.; Tay, Michael E.; Rovnak, Susan E.; Pazur, Beverly A.

CORPORATE SOURCE: Paul M. Althouse Lab., Pennsylvania State Univ., University Park, PA, 16802, USA
SOURCE: Immunology Letters (1982), 5(6), 285-91
CODEN: IMLED6; ISSN: 0165-2478
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A myeloma protein in ascitic fluid from BALB/c mice bearing W3129 plasma cell tumors was isolated by affinity chromatog. This protein exhibits antidextran activity and has been obtained in highly purified form by selective adsorption on isomaltosyl-Sepharose and elution with isomaltose solution The isomaltosyl-Sepharose was synthesized from maltose, p-aminophenyl glucoside, and cyanogen bromide-activated Sepharose by a new procedure utilizing glycosyltransferase and chemical coupling reactions. Results of gel electrophoresis, isoelectrofocusing, and agar diffusion expts. showed that the purified myeloma protein consisted of 6 isomeric proteins with each isomer possessing antidextran activity. Data from hapten inhibition studies were interpreted to show that the W3129 myeloma protein combines with terminal isomaltosyl units of branched dextrans and oligosaccharides.

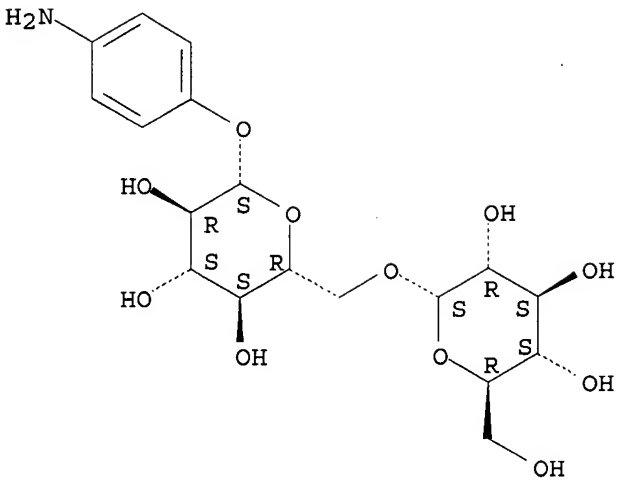
IT 67214-44-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with cyanogen bromide-activated Sepharose 4B)
RN 67214-44-2 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl 6-O-α-D-glucopyranosyl- (CA INDEX NAME)

Absolute stereochemistry.



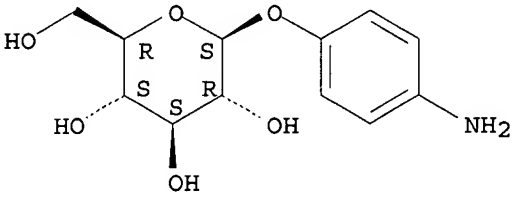
IT 67214-44-2DP, reaction products with Sepharose
RL: PREP (Preparation)
(preparation of and monoclonal antidextran antibodies purification by affinity
chromatog. on)
RN 67214-44-2 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl 6-O-α-D-glucopyranosyl- (CA INDEX NAME)

Absolute stereochemistry.



IT 20818-25-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with maltose)
RN 20818-25-1 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



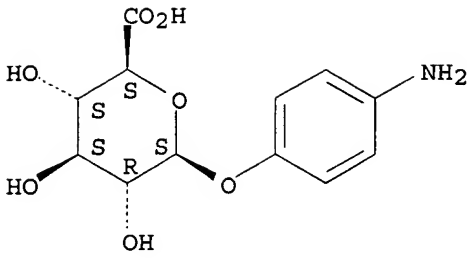
L7 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:968315 CAPLUS
DOCUMENT NUMBER: 146:353457
TITLE: Novel carbohydrate-binding activity of bovine liver β-glucuronidase toward lactose/N-acetyllactosamine sequences
AUTHOR(S): Matsushita-Oikawa, Hiroko; Komatsu, Mayumi; Iida-Tanaka, Naoko; Sakagami, Hiromi; Kanamori, Tetsuko; Matsumoto, Isamu; Seno, Nobuko; Ogawa, Haruko
CORPORATE SOURCE: Course of Advanced Biosciences, Graduate School of Humanities and Sciences, Tokyo, Japan
SOURCE: Glycobiology (2006), 16(10), 891-901
CODEN: GLYCE3; ISSN: 0959-6658
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB β-Glucuronidase is a lysosomal enzyme that plays an essential role in normal turnover of glycosaminoglycans and remodeling of the extracellular matrix components in both physiol. and inflammatory states. The regulation mechanisms of enzyme activity and protein targeting of β-glucuronidase have implications for the development of a variety of therapeutics. In this study, the effectiveness of various carbohydrate-immobilized adsorbents for the isolation of bovine liver β-glucuronidase (BLG) from other glycosidases was tested. β-Glucuronidase and contaminating glycosidases in com. BLG prepns. bound to and were coeluted from adsorbents immobilized with the substrate or an inhibitor of β-glucuronidase, whereas β-glucuronidase was found to bind exclusively with lactamyl-Sepharose among the adsorbents tested and to be effectively separated from other enzymes. Binding and elution studies demonstrated that the interaction of β-glucuronidase with lactamyl- Sepharose is pH dependent and carbohydrate specific. BLG was purified to homogeneity by lactamyl affinity chromatog. and subsequent anion-exchange high-performance liquid chromatog. (HPLC). Lactose was found to activate β-glucuronidase noncompetitively, indicating that the lactose-binding site is different from the substrate-binding site. Binding studies with biotinyl glycoproteins, lipids, and synthetic sugar probes revealed that β-glucuronidase binds to N-acetyllactosamine/lactose-containing glycoconjugates at neutral pH. The results indicated the presence of N-acetyllactosamine/lactose-binding activity in BLG and provided an effective purification method utilizing the novel carbohydrate binding activity. The biol. significance of the carbohydrate-specific interaction of β-glucuronidase, which is different from the substrate recognition, is discussed.

IT 21080-66-0D, 4-Aminophenol glucuronide, reaction products with Sepharose 4B
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(purification of bovine liver β-glucuronidase by lactamyl-Sepharose affinity chromatog. and characterization of its carbohydrate-binding activity toward lactose/N-acetyllactosamine sequences)

RN 21080-66-0 CAPLUS
CN β-D-Glucopyranosiduronic acid, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.

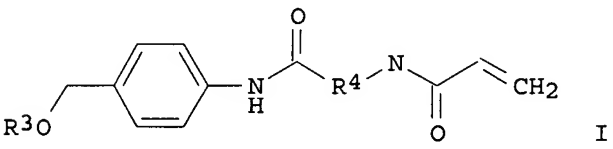


REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1013841 CAPLUS
DOCUMENT NUMBER: 142:6767
TITLE: Preparation of water-soluble polymer primer for sugar chain synthesis by enzymic transglycosylation using glycosyl transferase
INVENTOR(S): Nishiguchi, Susumu; Toda, Atsushi; Nishimura, Shinichiro; Yamada, Kuriko
PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004329117	A	20041125	JP 2003-129737	20030508

PRIORITY APPLN. INFO.: JP 2003-129737 20030508
GI



I

AB Water-soluble polymer primers comprising a monosaccharide or an oligosaccharide residue linked to the side chain of a water-soluble polymer through a linker containing a selectively cleavable bond are prepared by copolymn. of an acrylamide derivative (I) (R3 = monosaccharide or oligosaccharide residue; R4 = a linker containing 4-10 CH2 groups) with acrylic acid (20-80 mol%) and at least one vinyl monomer(s). Various oligosaccharides are efficiently synthesized by (1) contacting the water-soluble polymer primer and sugar nucleoside in the presence of glycosyl transferase, (2) repeating the step 1 once or twice to extend the sugar chain, (3) if necessary, removing the side products nucleotides or unreacted sugar nucleotides, and (4) repeating the steps 1-3 a few times and cleaving the sugar chain from the water-soluble polymer primer having the sugar chain extended as the result of transferring a plural number of sugar residues.

IT 797057-06-8DP, galactopyranosyl derivative 797057-07-9DP, galactopyranosyl derivative 797057-08-0DP, galactopyranosyl derivative 797057-11-5DP, N-acetylneuraminic acid derivative
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of water-soluble polymer primers containing monosaccharide or oligosaccharide for sugar chain synthesis by enzymic transglycosylation using glycosyl transferase)

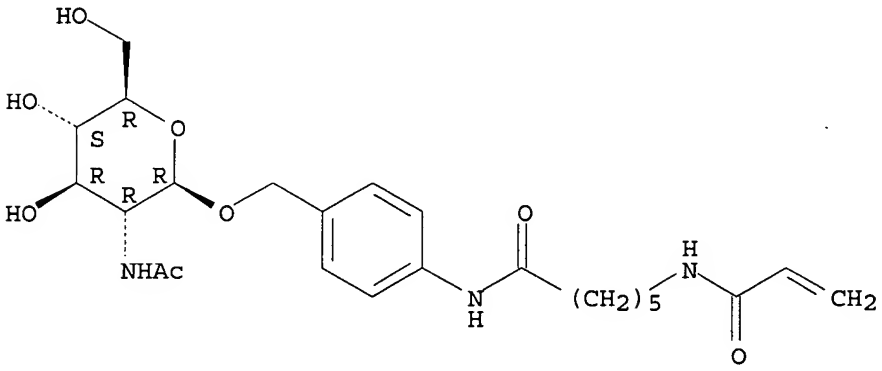
RN 797057-06-8 CAPLUS

CN 2-Propenoic acid, polymer with N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]hexanamide and N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

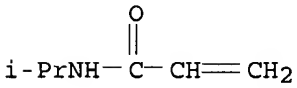
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



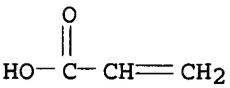
CM 2

CRN 2210-25-5
CMF C6 H11 N O



CM 3

CRN 79-10-7
CMF C3 H4 O2



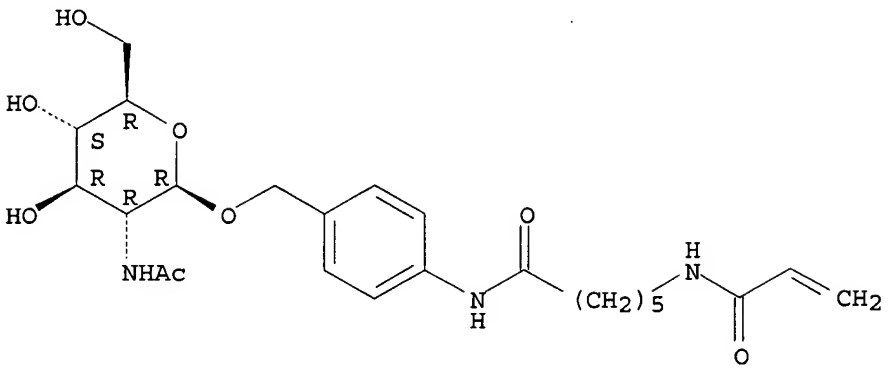
RN 797057-07-9 CAPLUS

CN Hexanamide, N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]-, polymer with N-(1-methylethyl)-2-propenamide and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

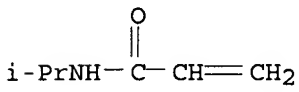
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



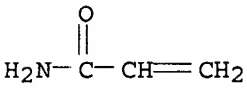
CM 2

CRN 2210-25-5
CMF C6 H11 N O



CM 3

CRN 79-06-1
CMF C3 H5 N O

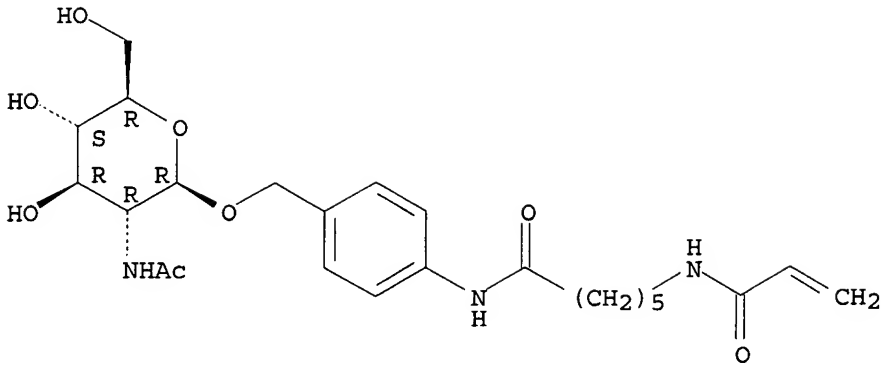


RN 797057-08-0 CAPLUS
CN Hexanamide, N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]-, polymer with N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

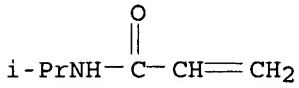
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



CM 2

CRN 2210-25-5
CMF C6 H11 N O

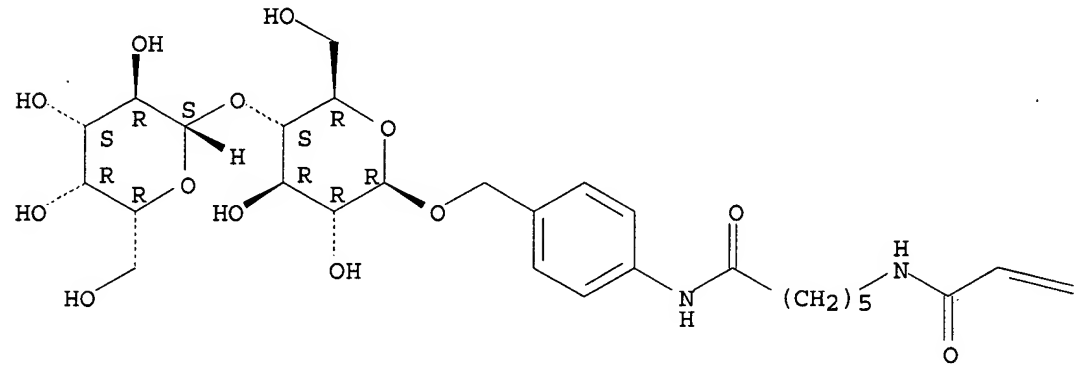


RN 797057-11-5 CAPLUS
CN 2-Propenoic acid, polymer with N-[4-[[(4-O-β-D-galactopyranosyl-β-D-glucopyranosyl)oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]hexanamide and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

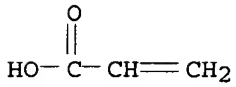
CRN 655232-04-5
CMF C28 H42 N2 O13

Absolute stereochemistry.



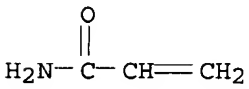
CM 2

CRN 79-10-7
CMF C3 H4 O2



CM 3

CRN 79-06-1
CMF C3 H5 N O



IT 158979-52-3DP, galactopyranose and N-acetylneuraminic acid derivative
797057-04-6DP, galactopyranose and N-acetylneuraminic acid derivative
797057-05-7DP, galactopyranose and N-acetylneuraminic acid derivative
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(preparation of water-soluble polymer primers containing monosaccharide or oligosaccharide for sugar chain synthesis by enzymic transglycosylation using glycosyl transferase)

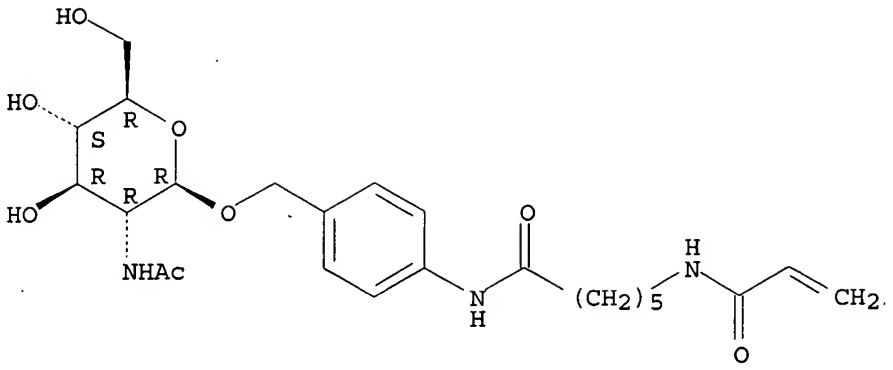
RN 158979-52-3 CAPLUS

CN Hexanamide, N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]-, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

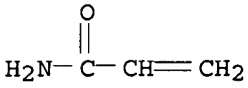
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



CM 2

CRN 79-06-1
CMF C3 H5 N O

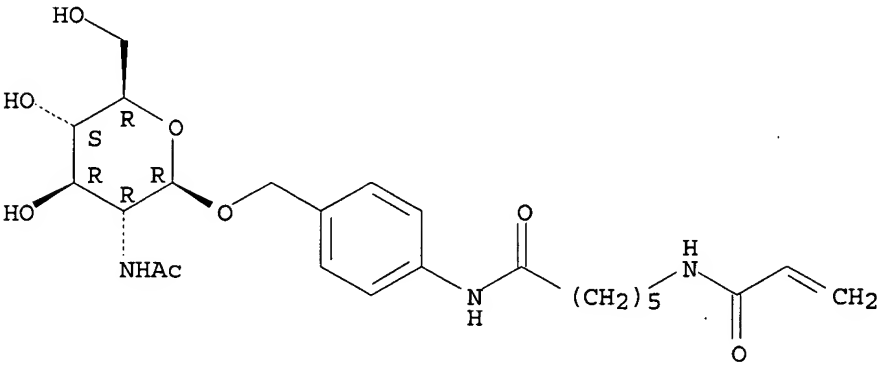


RN 797057-04-6 CAPLUS
CN 2-Propenoic acid, polymer with N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]hexanamide and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

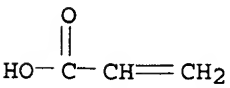
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



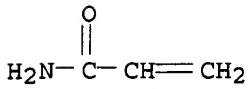
CM 2

CRN 79-10-7
CMF C3 H4 O2



CM 3

CRN 79-06-1
CMF C3 H5 N O

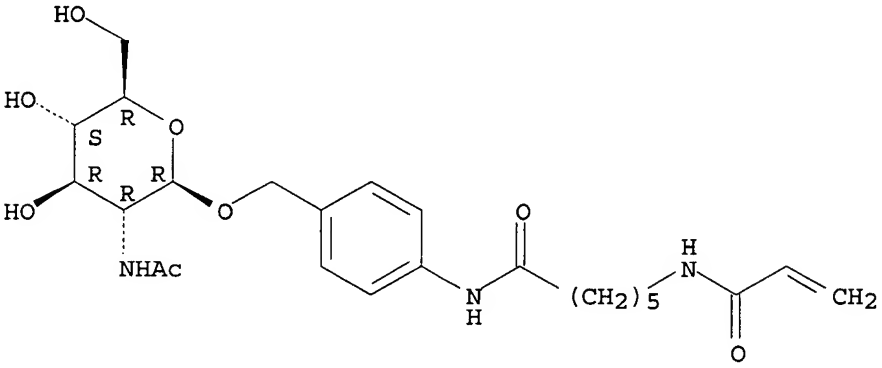


RN 797057-05-7 CAPLUS
CN 2-Propenoic acid, polymer with N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]hexanamide (9CI) (CA INDEX NAME)

CM 1

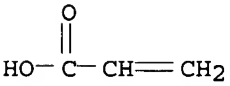
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



CM 2

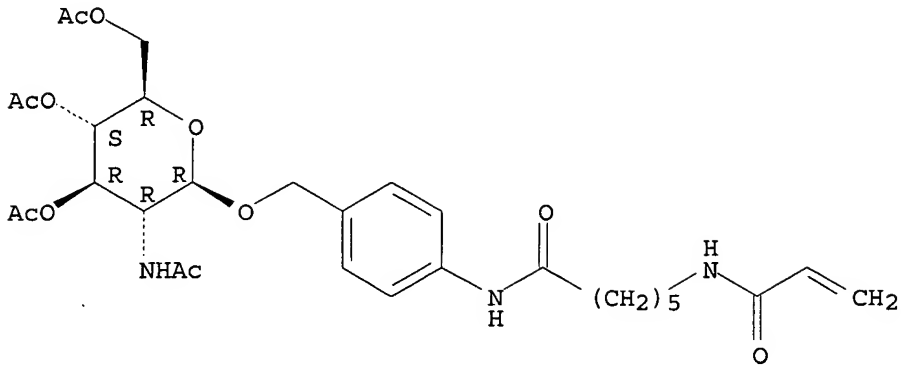
CRN 79-10-7
CMF C3 H4 O2



IT 158979-48-7P 158979-50-1P 158979-52-3P
655232-02-3P 655232-04-5P 797057-04-6P
797057-05-7P 797057-06-8P 797057-07-9P
797057-08-0P 797057-11-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of water-soluble polymer primers containing monosaccharide or oligosaccharide for sugar chain synthesis by enzymic transglycosylation using glycosyl transferase)

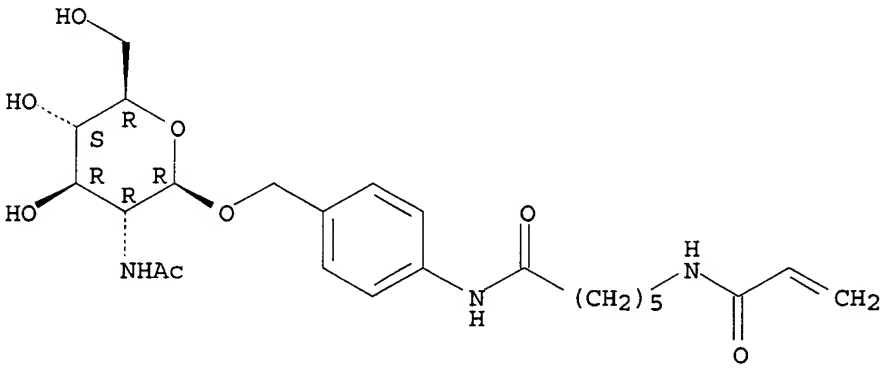
RN 158979-48-7 CAPLUS
CN Hexanamide, 6-[(1-oxo-2-propenyl)amino]-N-[4-[[[3,4,6-tri-O-acetyl-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 158979-50-1 CAPLUS
CN Hexanamide, N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

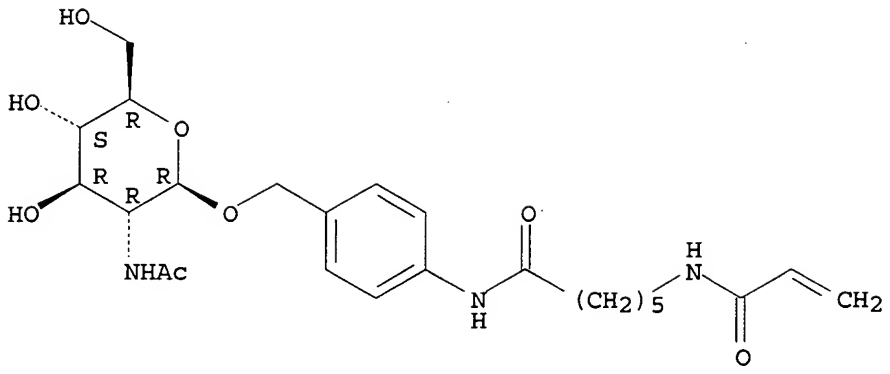


RN 158979-52-3 CAPLUS
CN Hexanamide, N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]-, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

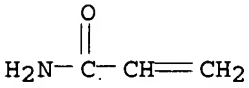
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



CM 2

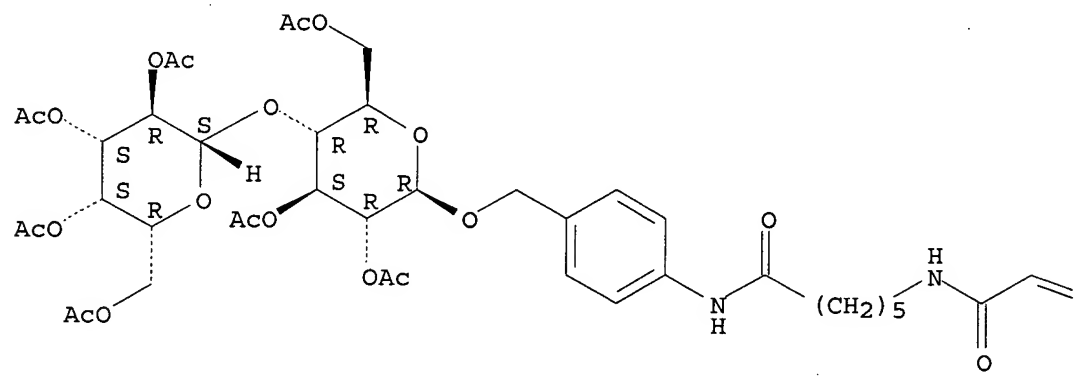
CRN 79-06-1
CMF C3 H5 N O



RN 655232-02-3 CAPLUS
CN Hexanamide, 6-[(1-oxo-2-propenyl)amino]-N-[4-[[[2,3,6-tri-O-acetyl-4-O-(2,3,4,6-tetra-O-acetyl-β-D-galactopyranosyl)-β-D-glucopyranosyl]oxy]methyl]phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



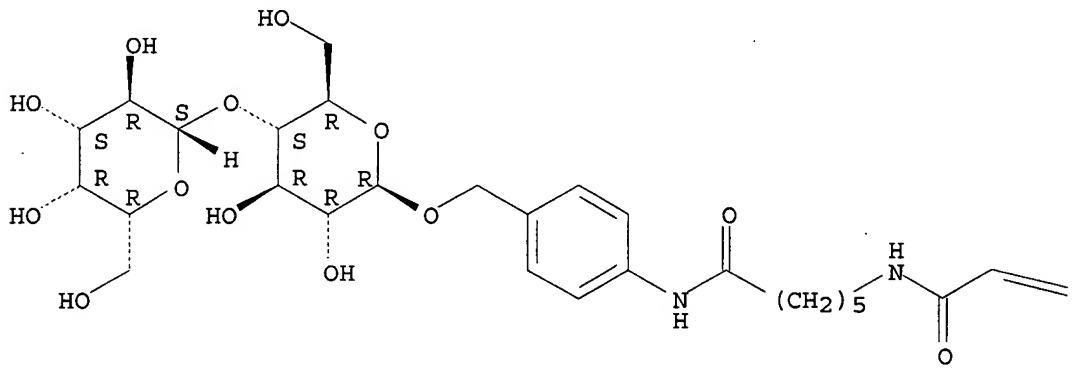
PAGE 1-B

$=CH_2$

RN 655232-04-5 CAPLUS
CN Hexanamide, N-[4-[[(4-O-β-D-galactopyranosyl-β-D-glucopyranosyl)oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

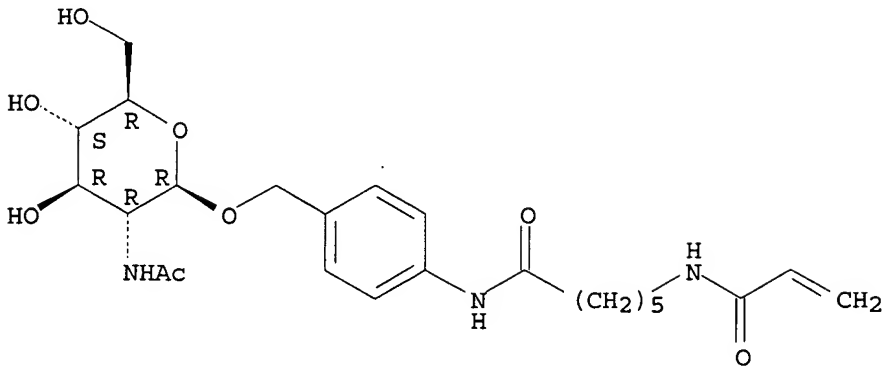
$=CH_2$

RN 797057-04-6 CAPLUS
CN 2-Propenoic acid, polymer with N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]hexanamide and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

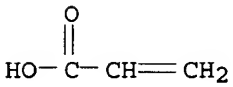
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



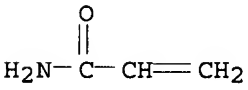
CM 2

CRN 79-10-7
CMF C3 H4 O2



CM 3

CRN 79-06-1
CMF C3 H5 N O

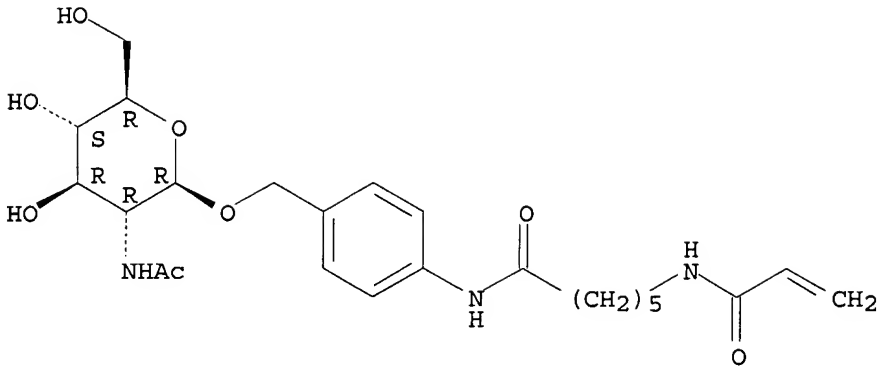


RN 797057-05-7 CAPLUS
CN 2-Propenoic acid, polymer with N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]hexanamide (9CI) (CA INDEX NAME)

CM 1

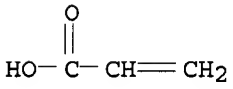
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



CM 2

CRN 79-10-7
CMF C3 H4 O2

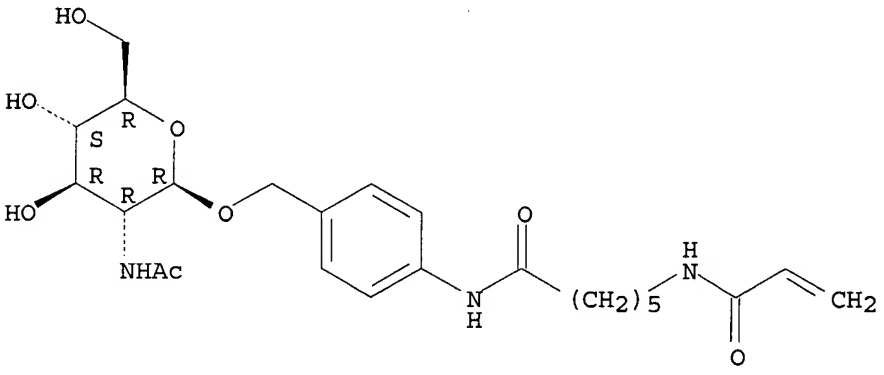


RN 797057-06-8 CAPLUS
CN 2-Propenoic acid, polymer with N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]hexanamide and N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

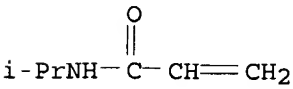
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



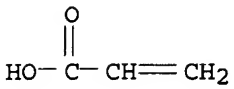
CM 2

CRN 2210-25-5
CMF C6 H11 N O



CM 3

CRN 79-10-7
CMF C3 H4 O2

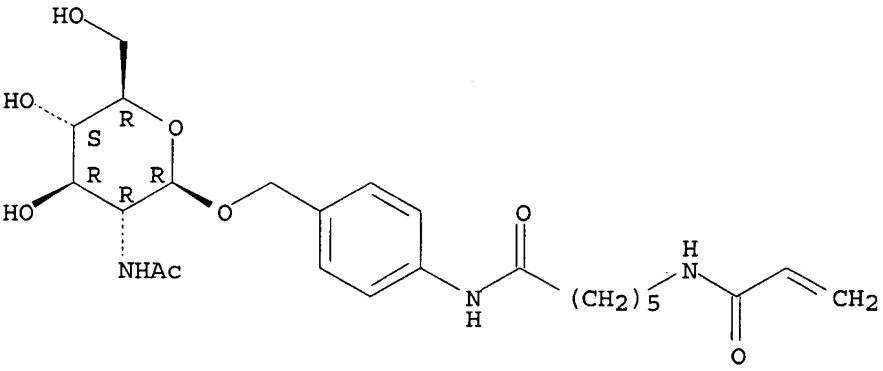


RN 797057-07-9 CAPLUS
CN Hexanamide, N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]-, polymer with N-(1-methylethyl)-2-propenamide and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

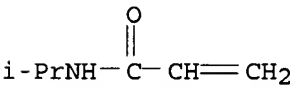
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



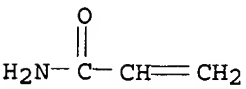
CM 2

CRN 2210-25-5
CMF C6 H11 N O



CM 3

CRN 79-06-1
CMF C3 H5 N O

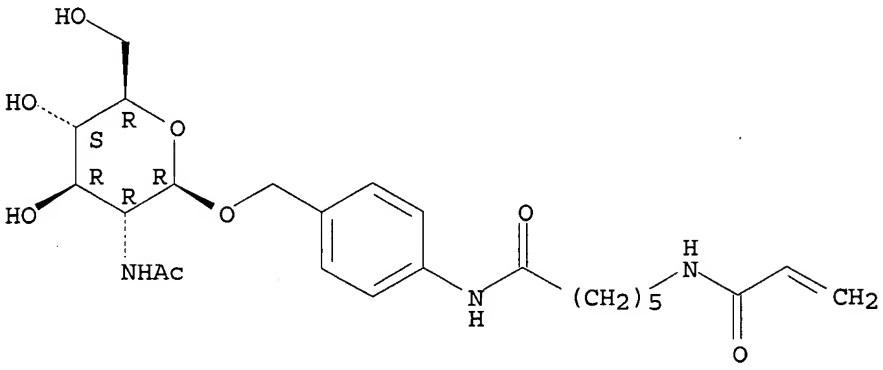


RN 797057-08-0 CAPLUS
CN Hexanamide, N-[4-[[[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]-, polymer with N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

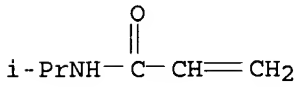
CRN 158979-50-1
CMF C24 H35 N3 O8

Absolute stereochemistry. Rotation (-).



CM 2

CRN 2210-25-5
CMF C6 H11 N O



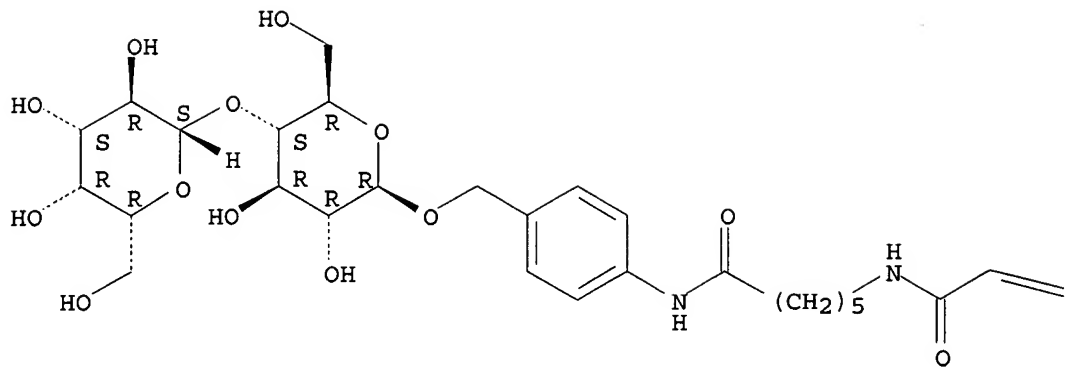
RN 797057-11-5 CAPLUS
CN 2-Propenoic acid, polymer with N-[4-[[(4-O-β-D-galactopyranosyl-β-D-glucopyranosyl)oxy]methyl]phenyl]-6-[(1-oxo-2-propenyl)amino]hexanamide and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 655232-04-5
CMF C28 H42 N2 O13

Absolute stereochemistry.

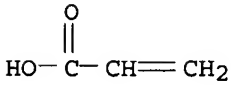
PAGE 1-A



PAGE 1-B

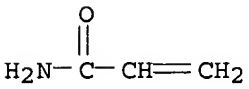
CM 2

CRN 79-10-7
CMF C3 H4 O2



CM 3

CRN 79-06-1
CMF C3 H5 N O



L7 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:654696 CAPLUS
DOCUMENT NUMBER: 135:195747
TITLE: Generation and screening of a dynamics combinatorial

library of dithio-oligosaccharides via Zemplen condensation

INVENTOR(S): Lehn, Jean-Marie; Ramstroem, Olof

PATENT ASSIGNEE(S): Therascope A.-G., Germany

SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1130009	A1	20010905	EP 2000-104236	20000301
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
WO 2001064605	A2	20010907	WO 2001-EP2310	20010301
WO 2001064605	A3	20011227		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1261568	A2	20021204	EP 2001-925363	20010301
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JP 2003525259	T	20030826	JP 2001-563451	20010301
US 2004043417	A1	20040304	US 2003-220470	20030804

PRIORITY APPLN. INFO.:

EP 2000-104236	A	20000301
WO 2001-EP2310	W	20010301

OTHER SOURCE(S): CASREACT 135:195747

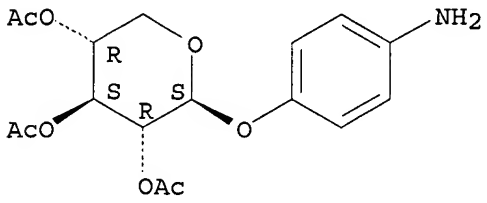
AB The present invention concerns a method for selectively establishing a dynamics combinatorial library of ligands binding to a target which binds at least two functionalities XC6H4NHCO(CH2)nSS(CH2)nCONHC6H4X (I), wherein X is sugar residue, n is 2, 3, which method comprises the following steps: selecting a plurality of functionalities which upon combination with each other are capable of forming an entity which may bind to the at least two functionalities in the target; linking at least two identical or different functionalities by at least one spacer group allowing reversible bond formation, thus creating discrete ligands; mixing together a plurality of a different discrete ligands having different combinations of functionalities; subjecting the mixture to conditions allowing a reversible bond formation and cleavage, hence a scrambling of the formalities; analyzing the mixture obtained; adding the target to the mixture; again analyzing the mixture, comparing the results obtained and identifying the functionality combinations which are most appropriate for the formation of a bond. In a further embodiment of the invention, the target is added when the discrete ligands are mixed together, in order to be present when the scrambling takes place. Synthesis of the library components: The carbohydrate dimers were synthesized from the corresponding peracetylated 4-aminophenyl glycosides, by condensation with the bis-dithiodiacids, followed by deacetylation under standard Zemplen conditions (NaOMe/MeOH). The 4-aminophenyl derivs. were all obtained from the com. 4-nitrophenyl glycosides following the same procedure. Thus, dithio-linked disaccharide I (X = β-glucopyranosyl, n = 2) was prepared via condensation of 4-aminophenylglucoside, 1-ethyl-3-(dimethylaminopropyl)carbodiimide, and bis-dithiodiacid for 4h at room temperature under argon in dichloromethane.

IT 17306-77-3P 101685-97-6P 293757-83-2P
293757-84-3P 293757-85-4P 293757-86-5P
293757-87-6P 293757-88-7P 293757-90-1P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(dynamics combinatorial library of dithio-oligosaccharides via Zemplen condensation)

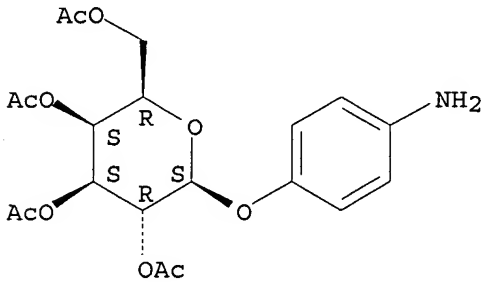
RN 17306-77-3 CAPLUS
CN β-D-Xylopyranoside, 4-aminophenyl, 2,3,4-triacetate (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



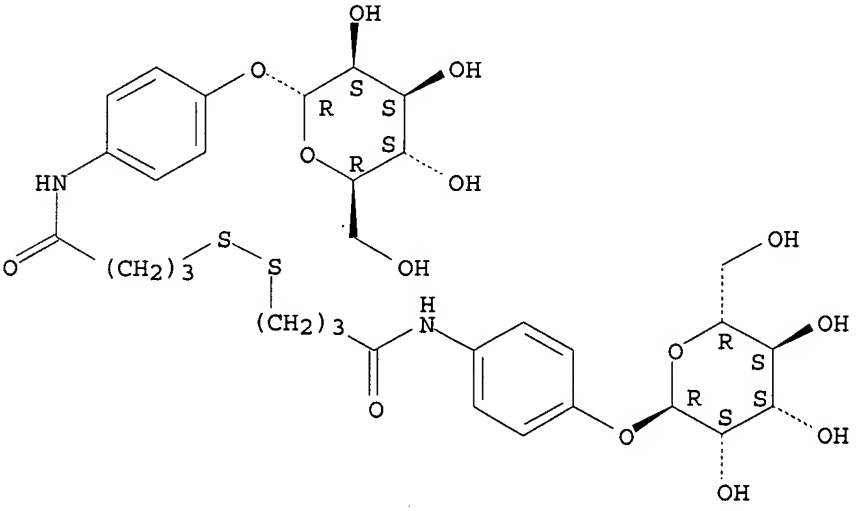
RN 101685-97-6 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl, 2,3,4,6-tetraacetate (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 293757-83-2 CAPLUS
CN Butanamide, 4,4'-dithiobis[N-[4-(α-D-mannopyranosyloxy)phenyl]-(9CI) (CA INDEX NAME)

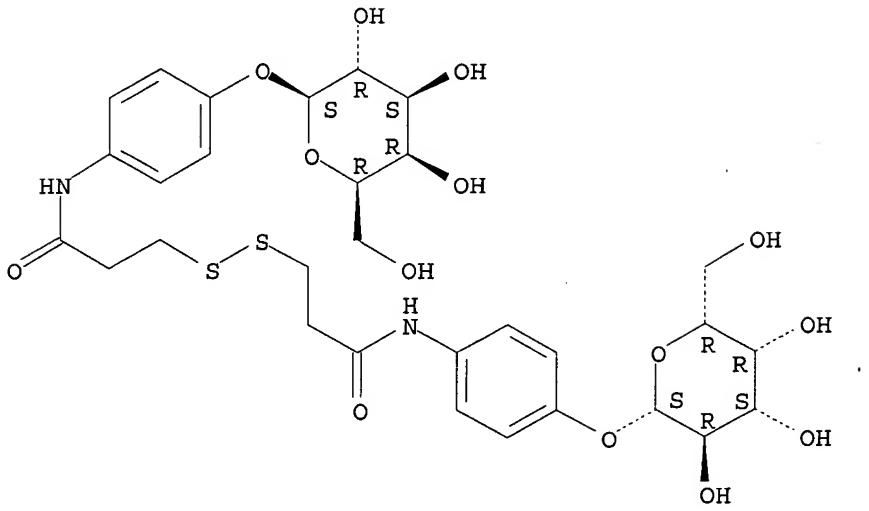
Absolute stereochemistry. Rotation (+).



RN 293757-84-3 CAPLUS
CN Propanamide, 3,3'-dithiobis[N-[4-(β-D-galactopyranosyloxy)phenyl]-

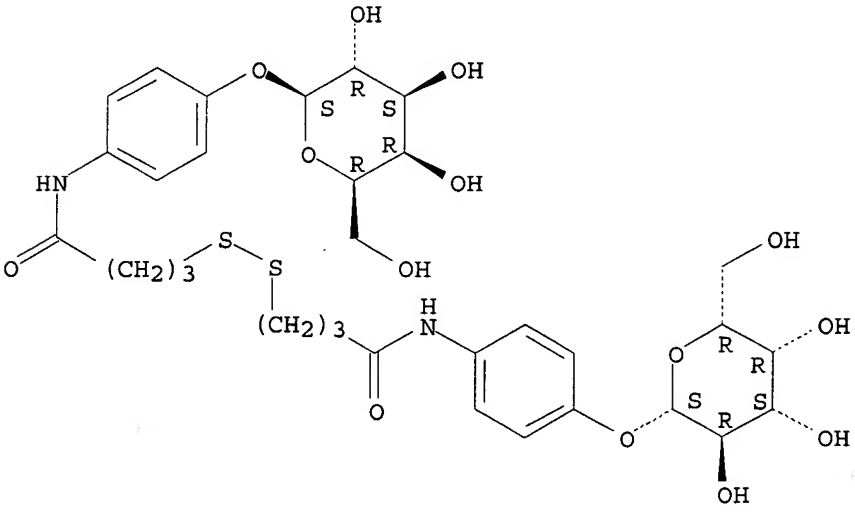
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



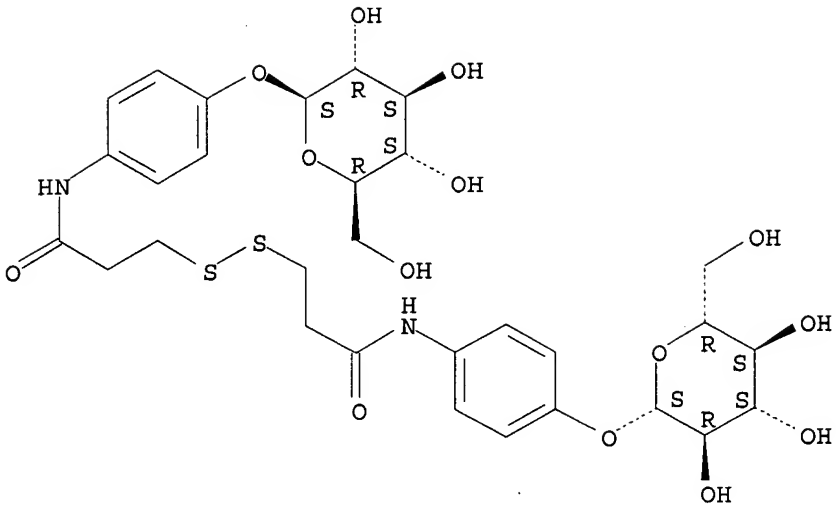
RN 293757-85-4 CAPLUS
CN Butanamide, 4,4'-dithiobis[N-[4-(β-D-galactopyranosyloxy)phenyl]-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



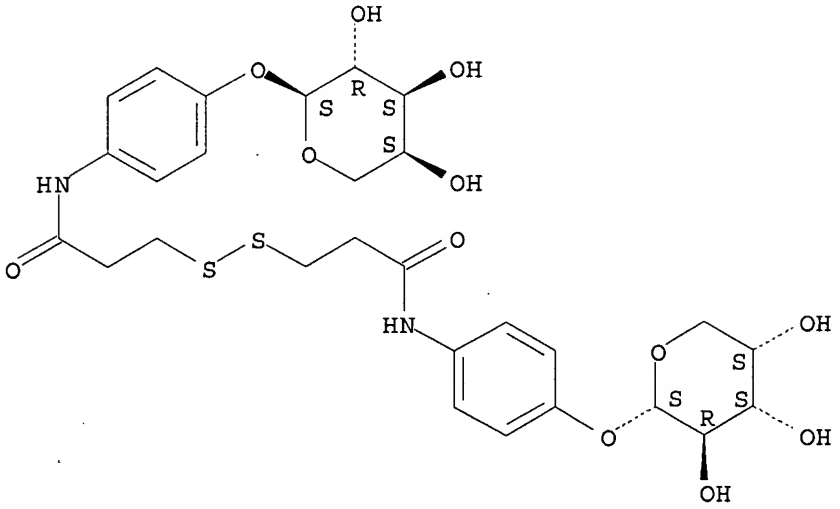
RN 293757-86-5 CAPLUS
CN Propanamide, 3,3'-dithiobis[N-[4-(β-D-glucopyranosyloxy)phenyl]-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



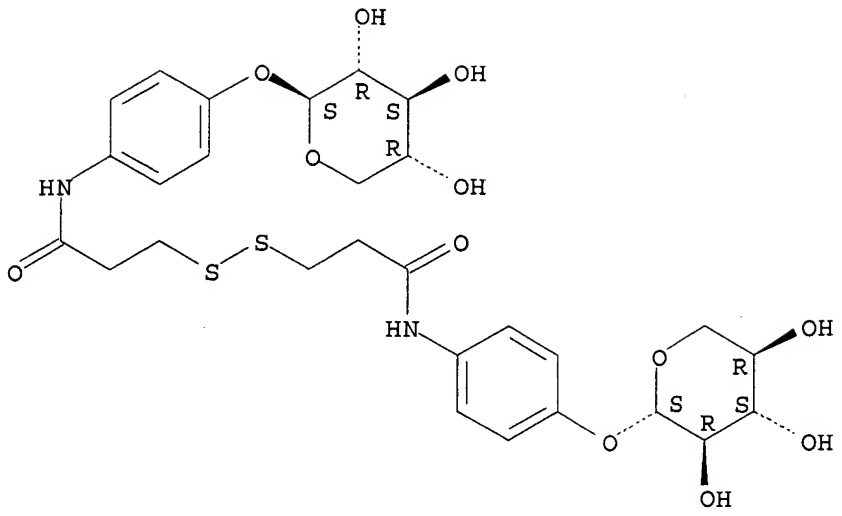
RN 293757-87-6 CAPLUS
CN Propanamide, 3,3'-dithiobis[N-[4-(α-L-arabinopyranosyloxy)phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



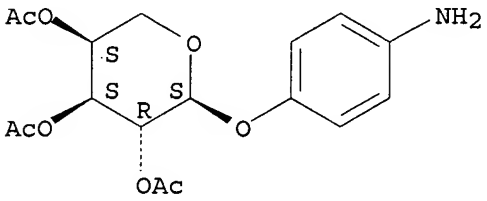
RN 293757-88-7 CAPLUS
CN Propanamide, 3,3'-dithiobis[N-[4-(β-D-xylopyranosyloxy)phenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 293757-90-1 CAPLUS
CN α-L-Arabinopyranoside, 4-aminophenyl, 2,3,4-triacetate (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:506520 CAPLUS
DOCUMENT NUMBER: 127:108057
TITLE: Galactopyranosides and their use
INVENTOR(S): Nilsson, Kurt
PATENT ASSIGNEE(S): Bioflexin Ab, Swed.; Nilsson, Kurt
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9723637	A1	19970703	WO 1996-SE1756	19961223
W: AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
SE 9601309	A	19970622	SE 1996-1309	19960402
AU 9714045	A	19970717	AU 1997-14045	19961220
CA 2240941	A1	19970703	CA 1996-2240941	19961223
EP 873414	A1	19981028	EP 1996-944178	19961223

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

JP 2000502565	T	20000307	JP 1997-523588		19961223
US 6444655	B1	20020903	US 1998-91486		19980619
US 39245	E1	20060822	US 1998-926453		19980619
AU 765631	B2	20030925	AU 2000-48831		20000726
PRIORITY APPLN. INFO.:			SE 1995-4616	A	19951221
			SE 1996-58	A	19960104
			SE 1996-290	A	19960124
			SE 1996-994	A	19960313
			SE 1996-1309	A	19960402
			SE 1996-1849	A	19960511
			SE 1996-1891	A	19960515
			SE 1996-1916	A	19960519
			SE 1996-2844	A	19960718
			SE 1996-3043	A	19960820
			SE 1996-3434	A	19960918
			AU 1997-14045	A3	19961220
			WO 1996-SE1756	W	19961223
			US 1998-91486	A	19980619

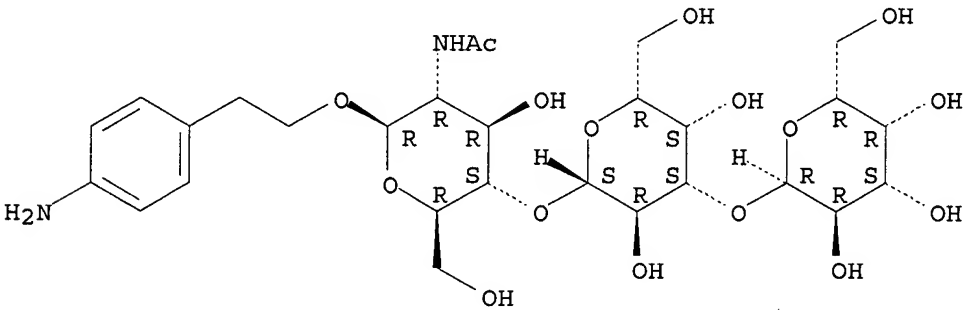
AB The present invention relates to simplified synthesis, new carbohydrate-based products and practical use of different carbohydrate-based products. Examples of these are (Galα1-3Gal), GlcNAcβ1-3Gal, α- or β-glycosides thereof, Galα1-3Gal-containing tri- or higher oligosaccharides, α- or β-glycosides thereof, GlcNAcβ1-3Gal containing tri-, tetra-, or higher oligosaccharides, and derivs. and/or α- or β-glycosides thereof, Galα1-3GalGlcNAcβ1-3Gal, α- or β-glycosides thereof, Galα1-3Galβ1-3Galβ1-4GlcNAcβ1-3Galβ1-4Glc, or other higher oligosaccharides containing the Galα1-3Gal- structure, α- or β-glycosides thereof, modified carbohydrates, di-, tri-, oligo-, or polyfunctional products containing carbohydrate structures, and the use of the products for synthesis, affinity purification, diagnostic applications, and therapy.

IT 192522-64-8P 192522-65-9P 192522-66-0P
192522-67-1P 192522-73-9P
RL: ARG (Analytical reagent use); BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(galactopyranosides and their uses)

RN 192522-64-8 CAPLUS

CN β-D-Glucopyranoside, 2-(4-aminophenyl)ethyl O-α-D-galactopyranosyl-(1→3)-O-β-D-galactopyranosyl-(1→4)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.

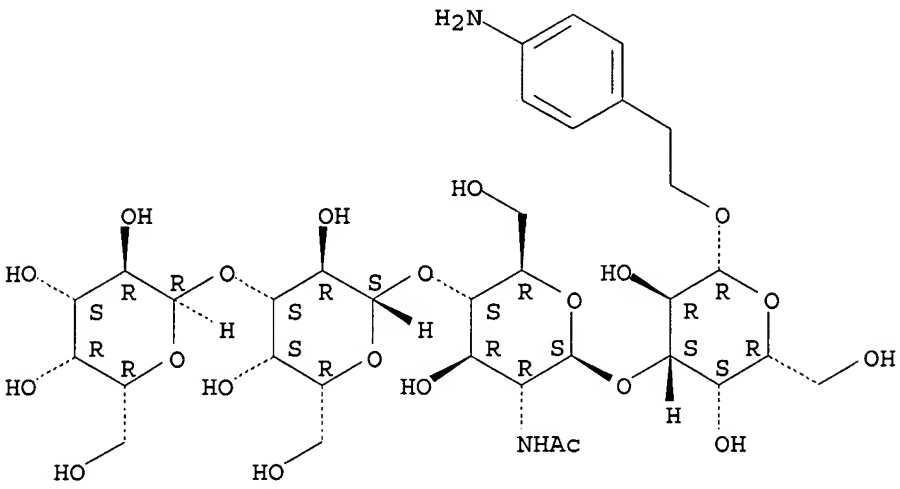


RN 192522-65-9 CAPLUS

CN β-D-Galactopyranoside, 2-(4-aminophenyl)ethyl O-α-D-galactopyranosyl-(1→3)-O-β-D-galactopyranosyl-(1→4)-O-2-

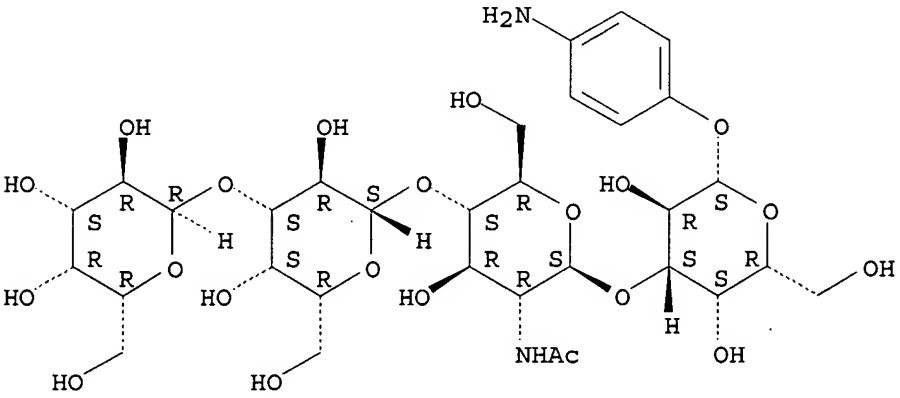
(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→3)- (CA INDEX NAME)

Absolute stereochemistry.



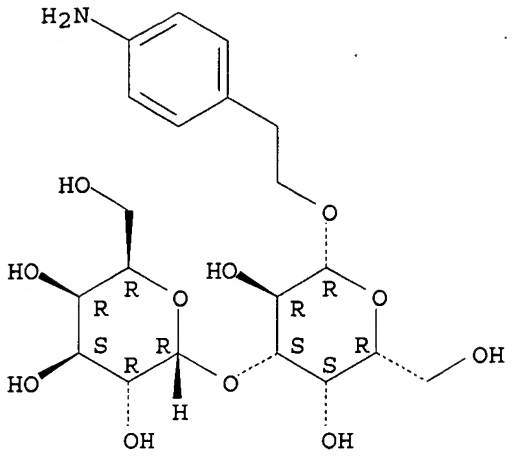
RN 192522-66-0 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl O-α-D-galactopyranosyl-(1→3)-O-β-D-galactopyranosyl-(1→4)-O-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl-(1→3)- (CA INDEX NAME)

Absolute stereochemistry.



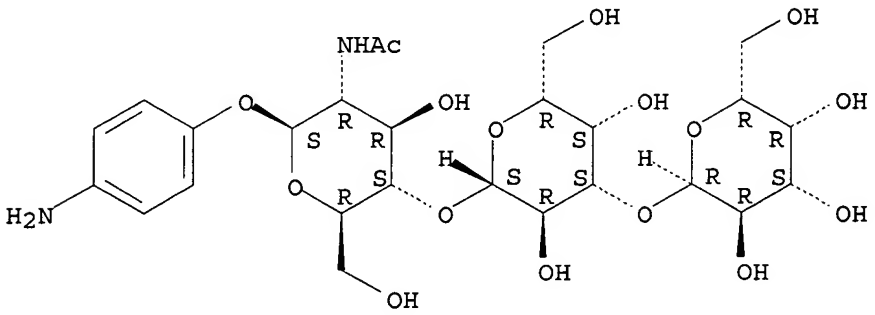
RN 192522-67-1 CAPLUS
CN β-D-Galactopyranoside, 2-(4-aminophenyl)ethyl 3-O-α-D-galactopyranosyl- (CA INDEX NAME)

Absolute stereochemistry.



RN 192522-73-9 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl O-α-D-galactopyranosyl-(1→3)-O-β-D-galactopyranosyl-(1→4)-2-(acetylamino)-2-deoxy- (CA INDEX NAME)

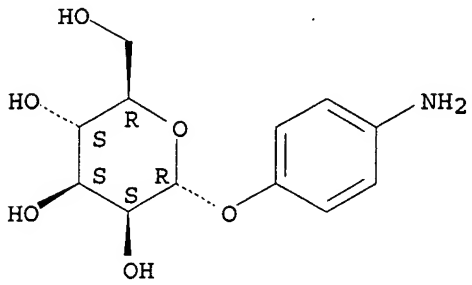
Absolute stereochemistry.



L7 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:264957 CAPLUS
DOCUMENT NUMBER: 120:264957
TITLE: Isolation of anti-mannose antibodies by affinity chromatography on mannosyl-Sepharose
AUTHOR(S): Pazur, John H.; Liu, Belin; Li, Nan Qian
CORPORATE SOURCE: Paul M. Althouse Lab., Pennsylvania State Univ., University Park, PA, 16802, USA
SOURCE: Natural Product Letters (1992), 1(1), 51-7
CODEN: NPLEEF; ISSN: 1057-5634
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Anti-α-D-mannose antibodies have been isolated from the serum of rabbits immunized with the glycoconjugate of α-D-mannose and bovine serum albumin joined by aminophenyl bridges. The antibodies were purified by affinity chromatog. with adsorption on a mannosyl-Sepharose 4B column and elution with α-D-mannose or Me α-D-mannoside. Such antibodies should be especially useful for studying the detection and progression of diseases caused by viruses, pathogenic microorganisms or transformed cells and could be useful as curative agents.
IT 34213-86-0DP, reaction products with albumin or Sepharose 4B
RL: PREP (Preparation)
(preparation of, for mannose antibody isolation)
RN 34213-86-0 CAPLUS

CN α-D-Mannopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:54802 CAPLUS
DOCUMENT NUMBER: 118:54802
TITLE: Chromatography of β-glucuronidase from bovine liver. A study of the enzyme binding sites of prepared adsorbents
AUTHOR(S): Iino, Nobuko; Yoshida, Kazuo
CORPORATE SOURCE: Daiichi Coll. Pharm. Sci., Fukuoka, 815, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1992), 40(7), 1852-9
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
AB β-Glucuronidase from bovine liver was adsorbed to the adsorbents prepared with CH-Sepharose 4B and either the competitive inhibitor or its analogs such as p-aminophenyl 1-thio-β-D-glucuronic acid, -glucoside, -galactoside, and N-acetyl glucosaminide. The adsorbed enzyme was eluted at 0.1 or 0.5M NaCl by a stepwise gradient. Chromatog. of the enzyme was also performed by using the adsorbents prepared with Epoxy-activated Sepharose 6B and amine compds. or other compds. In order to see whether the hydroxyl groups of the sugar parts in the ligand are necessary for the adsorption of the enzyme, chromatog. was preformed by using the adsorbents prepared with sugar derivs. as the ligand. As a result, it was found that β-glucuronidase had an affinity for adsorbents prepared with either acetyl derivs. or methoxy derivs. of glycosides and CH-Sepharose 4B. From the results of elution of the enzyme with NaCl from adsorbents having amide bonding, it was clarified that the affinity of the enzyme for adsorbents without glycosides in the ligands correlated with acidity of the amide in the adsorbents. Hydrogen bond chromatog. was preformed with the prepared adsorbents. The enzyme was adsorbed under a high concentration of ammonium sulfate, and the elution of the adsorbed enzyme from adsorbents was examined by the degradation of salt. The enzyme was most easily eluted from aminoethyl 1-thio-β-D-glucuronic acid-CH Sepharose 4B at 0.9M ammonium sulfate and at 0.5M concentration of the salt with p-aminophenyl 1-thio-β-D-glucuronic acid-CH Sepharose 4B. Furthermore, the adsorbed enzyme was eluted by the addition of urea as well as ethylene glycol which are known as reagents which weaken hydrogen bonding. The results suggested that the interaction between the enzyme and the adsorbents with an amide bonding may be affected by the electrostatic force in the adsorbents under a high concentration of salt, although the electrostatic force decreases under the high concentration of salt. The authors also investigated whether or not the adsorbed enzyme was eluted by sodium cholate, cholic acid and triton X-100 known as hydrophobic reagents. It was assumed from the results of these chromatogs. that the presence of amide bonding in adsorbents with glycosides as the ligand may be essential

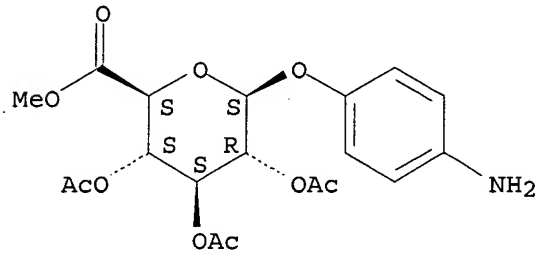
for the adsorption of the enzyme and that the glycosidic parts of the ligands have an effect on adsorption, however, it may not be essential for adsorption.

IT 25218-22-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acetylation of)

RN 25218-22-8 CAPLUS

CN β-D-Glucopyranosiduronic acid, 4-aminophenyl, methyl ester, 2,3,4-triacetate (CA INDEX NAME)

Absolute stereochemistry.

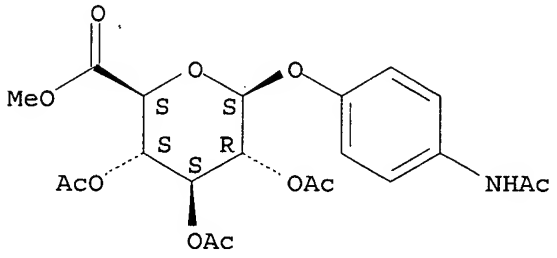


IT 30824-21-6P 65907-85-9P 145204-49-5P
145204-50-8P 145204-51-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 30824-21-6 CAPLUS

CN β-D-Glucopyranosiduronic acid, 4-(acetylamino)phenyl, methyl ester, 2,3,4-triacetate (CA INDEX NAME)

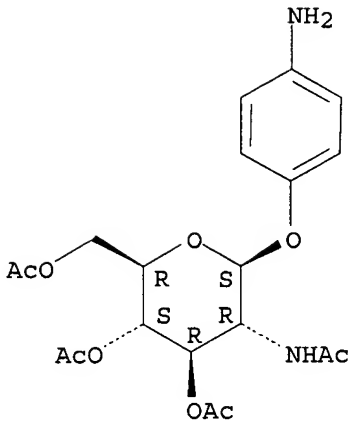
Absolute stereochemistry.



RN 65907-85-9 CAPLUS

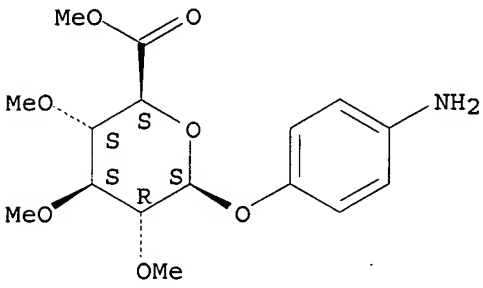
CN β-D-Glucopyranoside, 4-aminophenyl 2-(acetylamino)-2-deoxy-, 3,4,6-triacetate (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 145204-49-5 CAPLUS
CN β-D-Glucopyranosiduronic acid, 4-aminophenyl 2,3,4-tri-O-methyl-, methyl ester, hydrochloride (9CI) (CA INDEX NAME)

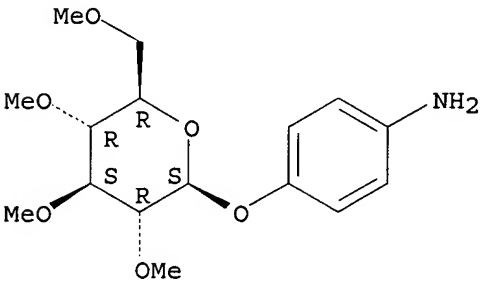
Absolute stereochemistry.



● HCl

RN 145204-50-8 CAPLUS
CN β-D-Glucopyranoside, 4-aminophenyl 2,3,4,6-tetra-O-methyl-, hydrochloride (9CI) (CA INDEX NAME)

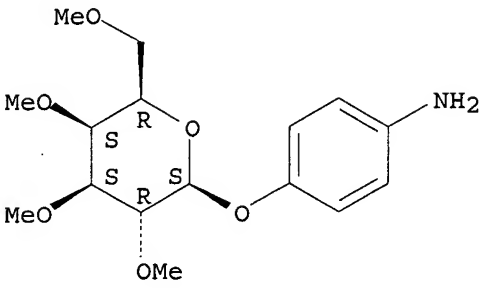
Absolute stereochemistry.



● HCl

RN 145204-51-9 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl 2,3,4,6-tetra-O-methyl-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



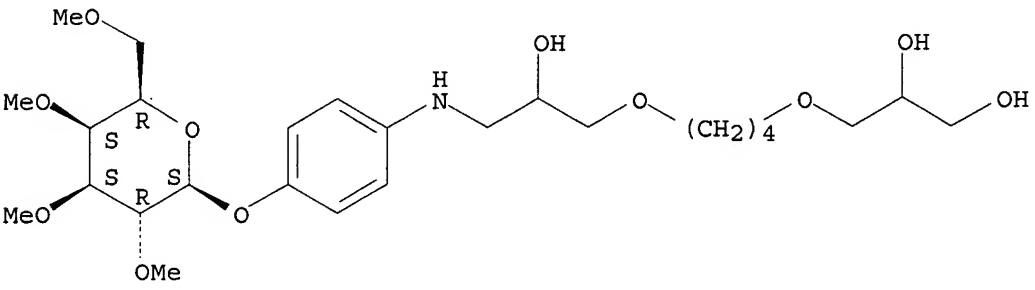
● HCl

IT 145378-90-1P 145378-91-2P 145378-92-3P
145378-93-4P 145537-59-3P 145537-60-6P
145537-61-7P 145537-62-8P 145537-63-9P
145537-64-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of and liver β-glucuronidase affinity chromatog. on)
RN 145378-90-1 CAPLUS
CN Agarose, 2-hydroxy-3-[4-[2-hydroxy-3-[[4-[(2,3,4,6-tetra-O-methyl-β-D-galactopyranosyl)oxy]phenyl]amino]propoxy]butoxy]propyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 173584-36-6
CMF C26 H45 N O11

Absolute stereochemistry.



CM 2

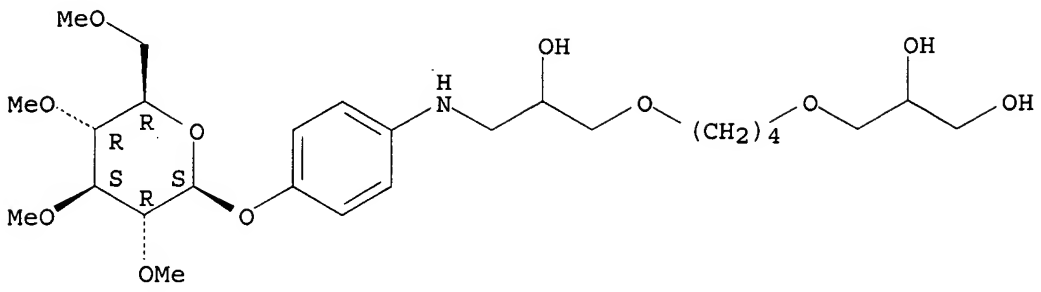
CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 145378-91-2 CAPLUS
CN Agarose, 2-hydroxy-3-[4-[2-hydroxy-3-[[4-[(2,3,4,6-tetra-O-methyl-β-D-glucopyranosyl)oxy]phenyl]amino]propoxy]butoxy]propyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 173584-37-7
CMF C26 H45 N O11

Absolute stereochemistry.



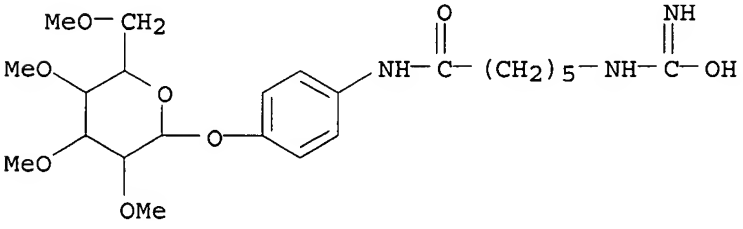
CM 2

CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 145378-92-3 CAPLUS
CN Agarose, [6-oxo-6-[[4-[(2,3,4,6-tetra-O-methyl-β-D-galactopyranosyl)oxy]phenyl]amino]hexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 173938-40-4
CMF C23 H37 N3 O8



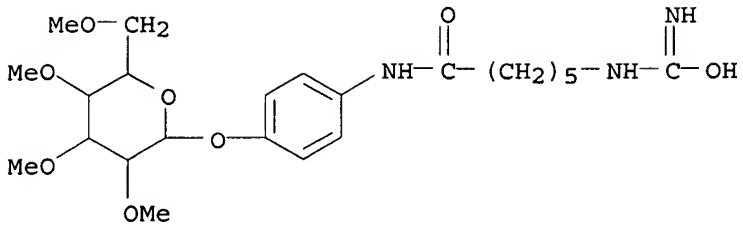
CM 2

CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 145378-93-4 CAPLUS
CN Agarose, [6-oxo-6-[[4-[(2,3,4,6-tetra-O-methyl-β-D-glucopyranosyl)oxy]phenyl]amino]hexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 173894-23-0
CMF C23 H37 N3 O8



CM 2

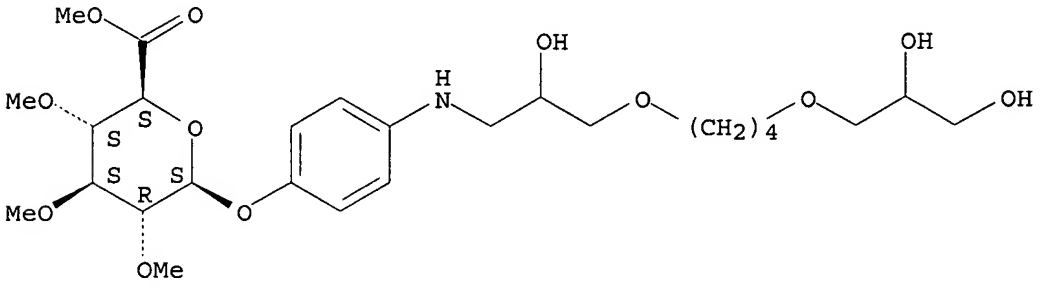
CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 145537-59-3 CAPLUS
CN Agarose, 2-hydroxy-3-[4-[2-hydroxy-3-[[4-[(6-methyl-2,3,4-tri-O-methyl-β-D-glucopyranuronosyl)oxy]phenyl]amino]propoxy]butoxy]propyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 173584-38-8
CMF C26 H43 N O12

Absolute stereochemistry.



CM 2

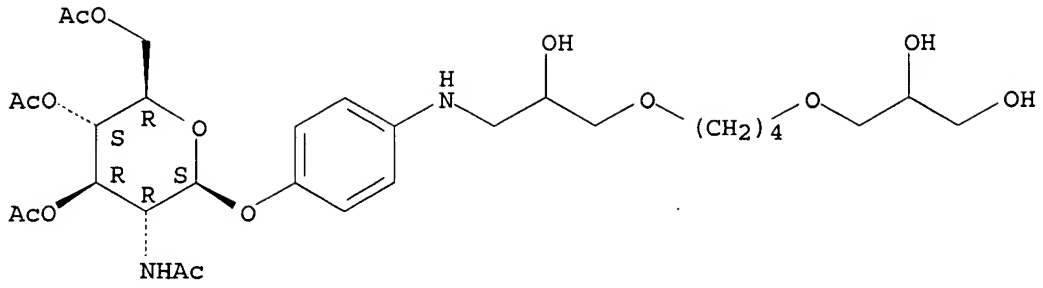
CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 145537-60-6 CAPLUS
CN Agarose, 2-hydroxy-3-[4-[2-hydroxy-3-[[4-[[3,4,6-tri-O-acetyl-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]phenyl]amino]propoxy]butoxy]propyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 173659-40-0
CMF C30 H46 N2 O14

Absolute stereochemistry.



CM 2

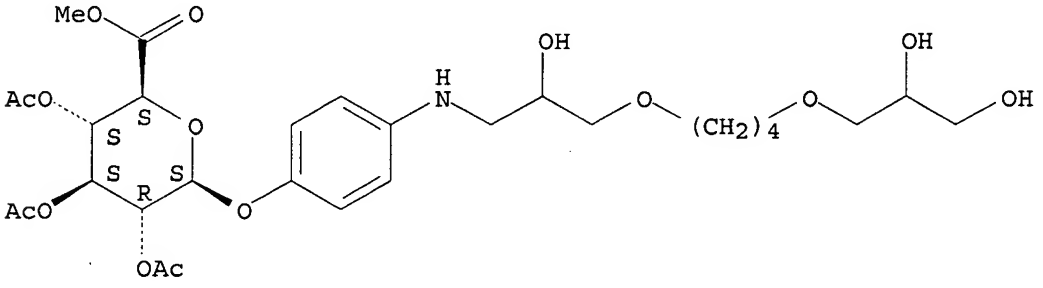
CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 145537-61-7 CAPLUS
CN Agarose, 2-hydroxy-3-[4-[2-hydroxy-3-[[4-[(2,3,4-tri-O-acetyl-6-methyl-β-D-glucopyranuronosyl)oxy]phenyl]amino]propoxy]butoxy]propyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 173659-41-1
CMF C29 H43 N O15

Absolute stereochemistry.



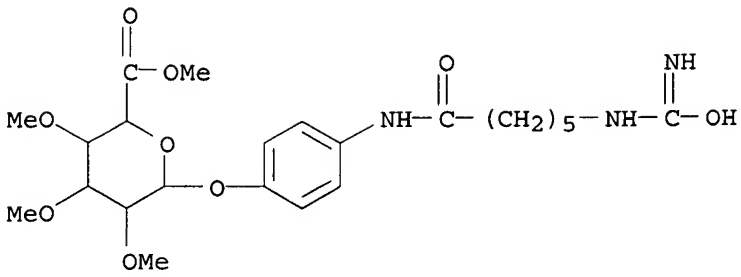
CM 2

CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 145537-62-8 CAPLUS
CN Agarose, [6-[[4-[(6-methyl-2,3,4-tri-O-methyl-β-D-glucopyranuronosyl)oxy]phenyl]amino]-6-oxohexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 173761-43-8
CMF C23 H35 N3 O9



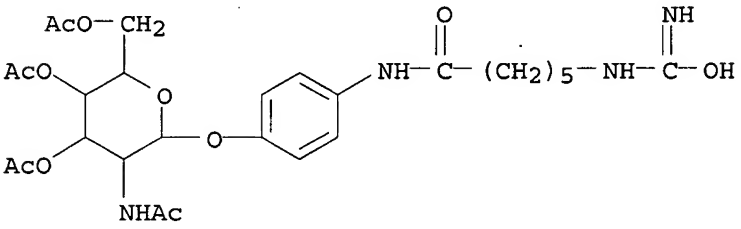
CM 2

CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 145537-63-9 CAPLUS
CN Agarose, [6-oxo-6-[[4-[[3,4,6-tri-O-acetyl-2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]oxy]phenyl]amino]hexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 173894-24-1
CMF C27 H38 N4 O11



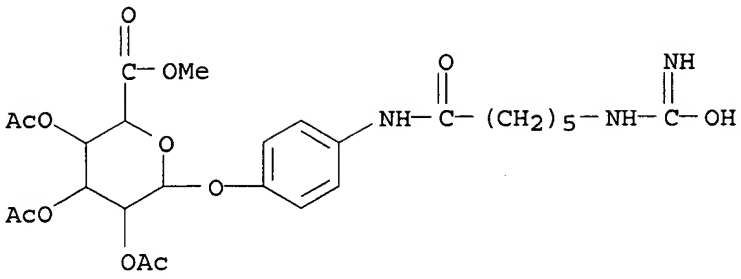
CM 2

CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 145537-64-0 CAPLUS
CN Agarose, [6-oxo-6-[[4-[(2,3,4-tri-O-acetyl-6-methyl-β-D-glucopyranuronosyl)oxy]phenyl]amino]hexyl]carbamimidate (9CI) (CA INDEX NAME)

CM 1

CRN 173894-25-2
CMF C26 H35 N3 O12



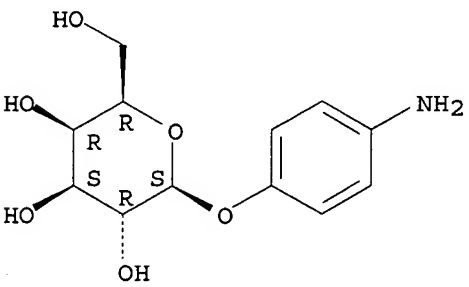
CM 2

CRN 9012-36-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L7 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1992:28093 CAPLUS
DOCUMENT NUMBER: 116:28093
TITLE: Large scale purification of ricin by one-step affinity chromatography
AUTHOR(S): Zhang, Zhenfan; Ying, Wenbin; Wu, Wentu; Wang, Qingcheng
CORPORATE SOURCE: Shanghai Inst. Biochem., Acad. Sin., Shanghai, Peop. Rep. China
SOURCE: Shengwu Huaxue Yu Shengwu Wuli Xuebao (1989), 21(3), 261-5
CODEN: SHWPAU; ISSN: 0582-9879
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB p-Nitrophenyl β-D-galactopyranoside was reduced with sodium dithionite. The derivative was coupled with cyanogen bromide-activated Sepharose 4B to form an affinity gel, β-D-galactosyl-Sepharose 4B (Gel-Sepharose). Castor beads produced in East China were decoated and then extracted with 5% HOAc. After (NH4)2SO4 precipitation (40-80% saturation), the protein was applied to a Gel-Sepharose column. Electrophoretically pure ricin was isolated by a D-galactose gradient elution (0-0.11M). The agglutinin could not be eluted with 0.11M galactose, thereby realizing the one-step chromatog. isolation of ricin. This method is simpler than others reported up to date particularly for the large scale isolation of ricin for preparation of immunotoxins.
IT 5094-33-7DP, reaction products with Sepharose 4B
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for affinity chromatog. in purification of ricin)
RN 5094-33-7 CAPLUS
CN β-D-Galactopyranoside, 4-aminophenyl (CA INDEX NAME)

Absolute stereochemistry.



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=> d his

     (FILE 'HOME' ENTERED AT 10:22:12 ON 01 FEB 2008)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 10:22:27 ON 01 FEB 2008
L1             0 S ?SEPHAROSE? (P) ?SPACER? (P) PHENYL (P) AMINO
L2             9 S ?SEPHAROSE? (P) ?SPACER? (P) PHENYL

     FILE 'REGISTRY' ENTERED AT 10:46:49 ON 01 FEB 2008
L3               STRUCTURE UPLOADED
L4            16 S L3 SSS SAM
L5          3581 S L3 SSS FULL

     FILE 'CAPLUS, MEDLINE' ENTERED AT 10:48:50 ON 01 FEB 2008
L6          2421 S L5
L7            38 S L6 AND SEPHAROSE?
L8            38 S L6 AND ?SEPHAROSE?
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